



Bryn-Rhedyn Farm
Bedlinog

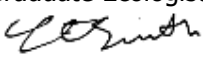
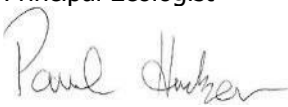
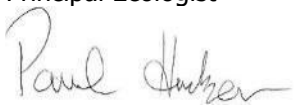
Preliminary Ecological Appraisal

January 2021

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Document Verification Table

Bryn-Rhedyn Farm, Bedlinog Preliminary Ecological Appraisal				
Revision	Date	Prepared by	Checked by	Verified by
1.0	25 January 2021	Jenny Smith Graduate Ecologist 	Paul Hudson MCIEEM Principal Ecologist 	Paul Hudson MCIEEM Principal Ecologist 

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Summary

Brief and Site Location	Acer Ecology Ltd was commissioned to conduct a preliminary ecological appraisal of land at Bryn-Rhedyn Farm, Bedlinog, CF46 6UF, within the boundary of Merthyr Tydfil Council. The purpose of the assessment was to document the baseline ecological condition of the survey area. This assessment will provide initial recommendations based on the development proposals available at the time of writing. They should be revised upon finalisation of the design.
Development Proposals	The proposed development works involve the conversion of a pre-existing barn to a holiday let, establishment of a new kennel area including a 16-unit commercial kennel surrounded by trees with on-site car parking, erection of a residential building, erection of a retaining wall and a new access road in the field immediately west of the current access road.
Statutory and Non-Statutory Nature Designations	There are no statutory designated sites such as SACs, SSSIs, National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) either within the proposed development site or within 2km of the site. There are 13 SINCs within 2km of the site including Cwm Bargoed SINC, which overlaps the majority of the site.
Impacts on Habitats of Value	The habitat that will be directly affected by the works: scattered broadleaved trees (A.1), scattered coniferous trees (A3.2), semi-improved acid grassland (B1.2), tall ruderal vegetation (C3.1); ephemeral and short perennial vegetation (J.3) and bare ground (J.4) are all assessed as being of no greater than Local value for wildlife.
Impacts on Protected and Notable Species	The proposed development could potentially have adverse impacts of varying degrees on a range of legally including common reptiles, nesting birds and foraging bats. It is considered essential, therefore, that appropriate mitigation measures are set in place to avoid or minimise impacts to these species (see Section 5).
Invasive Non-native Species	Small amounts of montbretia were recorded on site.
Requirements for Additional Survey	No further surveys are required.
Licensing Requirements	None required.
Recommendations	The following provisional recommendations have been developed based on the development proposals available at the time of writing: • Precautionary measures, including vegetation clearance, species deterrence measures for reptiles; • Sensitive lighting strategy for bats; • Landscaping; and • Control of montbretia.

1. Introduction

1.1. Brief

Acer Ecology Ltd was commissioned to conduct a preliminary ecological appraisal of a site at Bryn-Rhedyn Farm, Bedlinog, CF46 6UF (Ordnance Survey Grid Reference: SO0903 0085)¹, within the boundary of Merthyr Tydfil Council. The purpose of the assessment was to document the baseline ecological condition of the survey area, which comprises the red line boundary shown in Plan 1. This included identification of any designated sites or habitats that could be affected by the proposed works, and identification of, or potential for, protected and/or otherwise notable species of conservation interest that could be affected. Potential ecological constraints were identified, and subsequent recommendations developed.

This assessment will provide initial recommendations based on the development proposals available at the time of writing. They should be revised upon finalisation of the design.

1.2. Site Description

The site measures approximately 0.5ha in area and lies approximately 0.4km to the west of Cwmfelin village, and 0.5km to the south-west of Bedlinog village, the nearest settlements. Surrounding the site in all directions are open fields and pasture, and several areas of woodland, within which the Taff Bargeod runs to approximately 0.2km to the east. The site lies flat at approximately 275m above sea-level.

1.3. Proposed Works

The proposed development works involve the conversion of a pre-existing barn to a holiday let, establishment of a new kennel area including a 16-unit commercial kennel surrounded by trees with on-site car parking, erection of a residential building, erection of a retaining wall and a new access road in the field immediately west of the current access road. The plans are provided in Appendix 1 and the planning reference number for this site is P/20/0242².

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 Latitude and Longitude: 51.699053, -3.317454

² <http://publicaccess.merthyr.gov.uk/online-applications/applicationDetails.do?activeTab=externalDocuments&keyVal=QIG3DTKQ00300>

1.5. Review of Historic Site Data

Acer Ecology Ltd. produced a bat survey report in October 2020 of the barn proposed for conversion on Bryn Rhedyn Farm (Acer Ecology Ltd., 2020). No evidence of bats roosting within the barn was recorded during the preliminary roost assessment nor the subsequent dusk emergence and dawn re-entry surveys.

1.6. 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. Methods

The survey was undertaken following standard methods as described in the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal 2016 guidelines, and the Phase 1 Habitat Survey methodology (Joint Nature Conservation Committee, 2010). The methodology utilised for the survey work comprised a desk study, habitat survey and a survey of protected and notable species.

2.1. Desk Study

2.1.1. Protected Sites, Habitats and Species

Information on designated sites (Table 1) and protected species was obtained from the following sources. The legislation and policy relating to statutory and non-statutory designated sites can be found in Appendix 2. Plan 2 shows the protected sites in relation to the proposed development site.

Table 1: Summary of Designated Sites and Other Abbreviations

Abbreviations	
Special Areas of Conservation	SAC
Special Protected Area	SPA
Site of Special Scientific Interest	SSSI
National Nature Reserve	NNR
Local Nature Reserve	LNR
Site of Importance for Nature Conservation	SINC
Ancient Semi-Natural Woodland	ASNW
Restored Ancient Woodland Site	RAWS
Plantation on Ancient Woodland Site	PAWS
South East Wales Biological Records Centre	SEWBRc
Natural Resources Wales	NRW

Table 2: Sources of Data

Source	Data	Radius of Search
NRW Geographical Information Systems (GIS) Layers	Statutory and non-statutory nature conservation designated sites Historic Phase 1 Habitat Survey Data JNCC (1992 – 96) ASNW, RAWS and PAWS	Ramsar/SACs/SPAs/SSSIs/NNRs)/LNRs – 2km ³ . SACs (designated for bats) - 10km. Site boundary. 2km
SEWBRc	Protected species records (SEWBRc unique reference: 0201-450) SINCs	1km 1km

All available records of bat roosts were considered. For other species, only records collected within the last 10 years were considered relevant.

³ The citations of all the SSSIs and SACs within 2km of the site were consulted to determine if any of them had features or species which could be affected by the development proposals.

2.1.2. Landscape Context

The site and wider landscape were assessed and characterised using aerial images, Ordnance Survey maps and NRW Phase 1 Habitat maps dating from the 1990s. The presence of off-site features and habitats, which add to the ecological value within the wider area (for example, ponds within 0.5km of the site) were identified. Where appropriate, such features were scoped into the detailed assessment of impacts presented in Section 4 below.

2.1.3. Ancient Woodland

Although ancient woodland is not a designated site as such, it is often listed as a designated site due to its ecological significance and associated protection. Ancient woodland has therefore been included within the non-statutory designated site section of this report.

2.1.4. Planning Authority

The Merthyr Tydfil Council Planning Portal⁴ was consulted to determine if any previous survey information was available for the site, or immediate surroundings.

An internet-based search of the Merthyr Tydfil Local Biodiversity Action Plan (BAP)⁵ was undertaken.

2.2. Field Study

2.2.1. Personnel

The field survey was undertaken in good weather on the 26th October by Paul Hudson MCIEEM⁶ and on the 4th November 2020 by Jenny Smith⁷.

2.2.2. Vegetation and Habitats

The vegetation and habitat types present within the survey area were categorised and mapped in accordance with the standard⁸ 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 the completion of the survey, a colour-coded habitat plan was digitised using QGIS to show the extent and distribution of the different habitat types present within the site (see Plan 3).

Hedgerows within the site were not formally assessed against the definitions within the Hedgerow Regulations 1997 as this was beyond the scope of the assessment.

⁴[http:// publicaccess.merthyr.gov.uk/online-applications/](http://publicaccess.merthyr.gov.uk/online-applications/)

⁵<https://www.merthyr.gov.uk/media/1238/lbap-2014-19-final.pdf>

⁶ Paul graduated with a degree in Environmental Biology from Reading University and a Postgraduate Diploma in Conservation Management from the University of East Anglia. He is experienced in undertaking preliminary ecological appraisals and has been involved in ecological survey work since 2001. He has undertaken extensive training in protected species assessment, phase 1 habitat surveys and botanical surveying. Further details of his qualifications and experience can be found at <http://ow.ly/K6tsz>.

⁷ Jenny graduated from Cardiff University with a First-Class degree in Biological Sciences in 2020, during which she studied modules on biodiversity, ecology and conservation. She is in her first season of working as a Graduate Ecologist and is undergoing training with Acer Ecology in Phase 1 Habitat surveys.

⁸ Some additional categories were also used if applicable e.g. hard standing and Japanese knotweed.

The presence of invasive plant species listed on Schedule 9⁹ of the Wildlife and Countryside Act 1981 (as amended), such as Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*) and Japanese knotweed (*Fallopia japonica*) were 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:

- Listed under the and the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019;
- Listed under Section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales;
- Listed as a local priority for conservation, for example in the relevant Local Biodiversity Action Plan (LBAP);
- Red Listed using International Union for the Conservation of Nature (IUCN) criteria (e.g. in one of the UK Species Status Project¹⁰ reviews, in the Species of Conservation Concern Red, Amber or Near Threatened List¹¹, Birds of Conservation Concern in Wales¹², or, where a more recent assessment of the taxonomic group has not yet been undertaken, listed in a Red Data Book);
- Listed as a Nationally Rare or Nationally Scarce species (e.g. in one of the Species Status Project reviews) or listed as a Nationally Notable species where a more recent assessment of the taxonomic group has not yet been undertaken; and/or
- Endemic to a country or geographic location (it is appropriate to recognise endemic sub-species, phenotypes, or cultural behaviours of a population that are unique to a particular place).

It should be noted that only those species with potential to be present on-site are mentioned within this report. The methodologies used were as follows:

Birds

Any birds observed during the field survey were recorded, in addition to features capable of supporting nesting birds (e.g. trees, hedgerows, buildings, bramble, ruderal vegetation and rough grassland etc.). The site was also assessed for its actual and potential suitability to support Wildlife and Countryside Act 1981 (as amended) Schedule 1 species.

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

⁹ Schedule 9 species of plants and animals are ones that do not naturally occur in Great Britain but have become established in the wild and represent a threat to the natural fauna and flora.

¹⁰ The Species Status project is the successor to the JNCC's Species Status Assessment project, providing up-to-date assessments of the threat status of various taxa using the internationally accepted Red List guidelines (<http://jncc.defra.gov.uk/page-1773>).

¹¹ Eaton *et al.* (2015) Birds of conservation concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds 108: 708-746.

¹² Johnstone, I. and Bladwell, S. (2016) Birds of Conservation Concern in Wales 3: the population status of birds in Wales. Birds in Wales 13 (1).

Bats

Preliminary Ground-level Roost Assessment

A preliminary ground-level roost assessment of the trees within the survey area was undertaken looking for features that bats could use for roosting (Potential Roost Features¹³ (PRF) and evidence of bats (i.e. droppings in, around or below a PRF; odour emanating from a PRF; audible squeaking at dusk or during warm weather; or staining below the PRF). A systematic inspection was carried out around all accessible aspects of the tree, from both close to the trunk and further away.

The trees were assessed for their suitability to support roosting and hibernating bats in accordance with Table 4.1 of the Bat Conservation Trusts Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016). Binoculars were used as appropriate during the survey.

Buildings Assessment

The barn to the south of the building was previously assessed in a preliminary bat and nesting bird assessment as well as dusk emergence and dawn re-entry surveys (Acer Ecology Ltd., 2020). Therefore, a building assessment was deemed unnecessary.

Terrestrial Habitat Assessment

A preliminary assessment of the value of the site for bats (and any potential roost sites therein) was made in accordance with Table 4.1 of the Bat Surveys for Professional Ecologists (Collins, 2016). The assessment was based on the relative abundance and quality of habitat features within the site, and surrounding landscape, suitable for roosting, foraging and commuting bats.

Dormice

The hedgerows on 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 hedgerows 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), oak (*Quercus* sp.), honeysuckle (*Lonicera periclymenum*), bramble (*Rubus fruticosus* agg.), sycamore (*Acer pseudoplatanus*), as well as other trees and shrubs listed in Bright, Morris & Mitchell-Jones (2006) as being of value to dormice. In addition, connectivity to other areas of suitable habitat in the wider landscape, such as hedgerows and woodland, was assessed.

Very limited hazel was present on site and, therefore, it was not possible to undertake a search for hazelnut shells to determine if they had been opened by dormice.

¹³ Potential Roost Features that bats may use identified by Andrews include: woodpecker-holes; squirrel-holes; knot-holes; pruning-cuts; tear-outs; wounds; cankers; compression-forks; butt-rots; lightning strikes; hazard-beams; subsidence-cracks; shearing cracks; transverse cracks; welds; lifting bark; frost-cracks; fluting and ivy.

Great Crested Newts

The survey area was appraised for its suitability to support great crested newts (*Triturus cristatus*). The assessment was based on guidance outlined in the 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 water bodies were present within the site or within 0.5km of it.

There do not appear to be any ponds within 500m of the site (see Plan 4) and consequently there is considered to be negligible potential for this species to be present on the site and they are not mentioned further in this report.

Otters

The nearest suitable water body for otters comprises Taff Bargoed river which lies approximately 0.2km east of the proposed development site. The likelihood of otters being present within the site, therefore, is considered negligible and they are not mentioned any further in this report.

Badgers

Earth embankments, wooded copses, hedgerows and dense bramble beds are habitat features that often contain evidence of badger (*Meles meles*). Where present on-site, these and other suitable habitat features were searched for such evidence. Where present, the location of badger signs such as setts, runs, dung pits or latrines, prints, hair and foraging snuffle holes were recorded.

Reptiles

An assessment of the suitability of on-site habitats to support reptiles was made. Reptiles require a diverse range of habitats to meet their needs such as hedgerows, scrub, rough grassland, woodpiles, rubble, banks and compost heaps. The potential of the site to provide hibernation opportunities and spring/summer/autumn habitat was also assessed, with reference to guidance provided in the Herpetofauna Workers' Manual (Joint Nature Conservation Committee, 2003), the Reptile Management Handbook (Edgar, Foster & Baker, 2011) and the Reptile Mitigation Guidelines Technical Note TIN 102 (Natural England, 2013). The following factors were considered: vegetation type and structure; insolation (sun exposure); slope aspect; topography; surface geology; habitat connectivity; habitat size; prey abundance; refuge opportunity; hibernation opportunity; egg-laying potential for grass snake (*Natrix natrix*); public pressure; percentage of shade; levels of disturbance and management regime.

Marsh Fritillary & Small Pearl-Bordered Fritillary

As small pearl-bordered fritillary butterfly (*Boloria selene*) are mentioned in the Cwm Bargoed SINC citation, which overlaps the north of the site, the survey included a search for its larval food plants: common dog-violet (*Viola riviniana*) and marsh violet (*V. palustris*).

Additionally, the survey included a search for the larval food plant of the marsh fritillary butterfly (*Euphydryas aurinia*), devil's bit scabious (*Succisa pratensis*), which are also recorded in the Cwm Bargoed SINC citation. This involved looking for the presence of basal leaves of the larval food plant which may have been present at the time of the survey. The small pearl-bordered fritillary and marsh fritillary emerges from mid-May and so a search for adults was not undertaken.

Other Species

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

2.2.4. 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 and Ireland (CIEEM, 2018). 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.

2.2.5. Constraints and Limitations

General Temporal Constraints

Any ecological survey can only identify what was present on-site at the time the survey was conducted and habitat usage by species can change over time.

Seasonality of Survey

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 the survey. The survey can be considered as providing a non-exhaustive or full, plant list. The survey noted the habitat types present on site and the dominant vegetation at the time of the survey, which is likely to be constant and a fair reflection of the habitat quality present.

3. Results

3.1. Desk Study

3.1.1. Statutory Nature Conservation Designated Sites

Statutory Sites Notified for Bats (Special Areas of Conservation (SACs)) or Sites of Special Scientific Interest (SSSIs) Within 10km

No SACs that have been specially designated for bats lie within 10km of the site.

Other Protected Sites Within 2km

There are no statutory designated sites such as SACs, SSSIs, National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) either within the proposed development site or within 2km of the site.

3.1.2. Non-statutory Nature Conservation Designated Sites

Ancient Woodland Sites

There are 39 areas of Ancient Semi-Natural Woodland (ASNW), seven Restored Ancient Woodland Sites (RAWS), five Plantations on Ancient Woodland Sites (PAWS), and two Ancient Woodland Sites of Unknown Category, located within 2km of the site. The nearest area of ancient woodland is an unnamed area of ASNW located 36m to the north-east of the site.

Sites of Importance for Nature Conservation (SINCs)

There are no statutory designated sites such as SACs, SSSIs, National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) either within the proposed development site or within 2km of the site.

There are 13 SINCs within 2km of the site. Seven SINCs were recorded within 1km of the study area. These were:

- Cwm Bargoed SINC, which overlaps the majority of the site. 'Very large and diverse system of semi-upland 'ffridd' (valley side) and valley-bottom habitats associated with the Afon Bargod Taf, a section of which flows through the site. Complex mosaic of semi-natural habitats including ancient semi-natural woodland, bracken slopes with scattered trees and scrub, marshy grassland, wet and dry heathland, acid grassland, swamp and acid flush. Extensive wet woodlands dominated by alder occur along the valley bottom and tributaries, along with drier sessile oak woods on the valley sides. Purple moor-grass dominates large swathes of the marshy fields and occurs alongside cross-leaved heath and ling heather in the wet heathlands. The swamp habitats comprise dense stands of greater tussock sedge and bulrush, while common cotton-grass often dominates the acid flushes. Several ponds are also present. Many notable plant species have been recorded, including soft-leaved sedge, heath dog-violet, heath spotted-orchid, saw-wort, devil's-bit scabious, petty whin, ivy-leaved bellflower, cranberry, bitter vetch, tawny sedge and narrow buckler-fern. The site also supports small pearl-bordered fritillary and grayling butterflies, both uncommon species, along with

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several scarce dragonfly and moth species. Otter ranges along the Bargod Taf, and the site is important for a wide range of birds including cuckoo, pied flycatcher, wood warbler, whinchat and dipper.';

- Cwm Fedw SINC, located approximately 0.3km to the south. 'Large area of grassland and wet woodland on 'ffridd' (valleyside) slopes beside the course of the Nant-y-Fedw and running down into Cwm Bargod. Mainly semi-improved acid grasslands on the upper slopes, with semi-improved neutral grasslands and marshy grasslands (mainly rush-pastures) on the lower slopes. There is ancient semi-natural woodland along the course of the stream, dominated by alder, as well as oak, ash and beech woodland along the course of the Afon Bargod Taf, a section of which falls within this site. The site also contains bracken slopes, acid flushes and small areas of both wet and dry heathland. Otter ranges along the Bargod Taf, and the site is likely to be important for a variety of breeding bird species.';
- Cwm Felin Slopes SINC, located approximately 0.48km to the east. 'Two parcels of land, comprising 'ffridd' habitats on valley slopes above the Afon Bargod Taf. Mainly acid and marshy grasslands, dry heathland, bracken and pockets of semi-natural oak and alder woodland, some of which are ancient woodland.';
- Mynydd y Capel Common SINC, located approximately 0.71km to the south-west. 'Area of upland and semi-upland common land occupying part of the hilltop between the Taf and Bargod Taf valleys. Supports a mosaic of habitats characteristic of dry acid soils, particularly unimproved and semi-improved acid grasslands, with bracken slopes and small areas of heathland and western gorse scrub. The site is likely to be important for ground-nesting birds, particularly skylark and meadow pipit. Grayling and small heath butterflies have been recorded.';
- Lower Common Bargoed SINC, located approximately 0.76km to the south-east. 'Large and diverse site on valleysides above the Afon Bargod Taf, comprising semi-natural woodland, including a large area of ancient woodland, bracken slopes, small areas of heathland, marshy grassland, gritstone outcrops and an old colliery spoil tip supporting acid grassland. Also includes a section of the Afon Bargod Taf, along with some adjacent reed beds and two lakes that form part of the Taff Bargoed Community Park. The woodlands of the site range from wet alder woodland with a rich ground flora to more acid semi-upland oak woods with a ground flora dominated by wavy hairgrass. The site is important for a range of bird species, including whinchat, dipper, cuckoo and pied flycatcher.';
- Gelligaer Common SINC, located approximately 0.83km to the east. 'A very extensive upland common that continues within the neighbouring authority of Caerphilly County Borough. Comprises mainly unimproved acid grassland and grass-heath, mostly dominated by mat-grass, with areas of dry heath dominated by bilberry and bracken slopes with scattered trees to the south and west. There are also scattered marshy grasslands and acid flushes, which are often species-rich and support numerous localised plant species. Also included are some adjacent fields supporting

species-rich neutral and acid grassland and small remnants of mature oak woodland. The site is important for breeding birds including skylark and meadow pipit. Other notable species that have been recorded include red kite, peregrine falcon, yellowhammer, curlew and cuckoo. Several small ponds are present and support scarce blue-tailed damselfly.'; and

- Merthyr Common South SINC, located approximately 0.93km to the north-west. 'Very extensive upland / semi-upland common along the hill ridge between two major rivers. A mosaic of habitats occurs across the site, comprising mainly marshy grassland, acid grassland and wet heath to the north, and dry heath and bracken slopes to the south. There are also areas of acid flush, broad-leaved woodland (mainly of silver birch) and dense and scattered gorse scrub. Small pockets of silver birch woodland and scattered trees occur on 'ffridd' slopes in the south-west. Valuable because of its large size, especially the extent of the heathland habitats. Includes numerous ponds and streams (including a section of the Nant Bargod), extensive outcrops of rock and some disused quarries. Parts of the site are situated on old colliery spoil; these have largely revegetated with acid grasslands and heathlands, but calcareous influences also occur locally.. The ponds support a rich dragonfly and damselfly fauna, including scarce blue-tailed damselfly and black darter. The site is important for a range of ground-nesting birds, along with peregrine falcon on the high cliffs in the south.'

3.2. Field Survey

3.2.1. Habitats and Vegetation

The results of the general survey of habitats and vegetation are shown on Plan 3.

3.2.2. Summary of Habitats Present within the Site

The site consists of 11 elements which are described in detail below. These comprise:

- Scattered Scrub (A2.2);
- Scattered Broadleaved Trees (A3.1);
- Scattered Coniferous Trees (A3.2);
- Acid Grassland – Semi Improved – Species Poor (B1.2);
- Bracken – Continuous (C1.1);
- Tall Ruderal Vegetation (C3.1);
- Ephemeral and Short Perennial Vegetation (J1.3);
- Defunct Species-poor Hedgerow (J.2.2.2);
- Dry Ditch (J.2.6);
- Fence (J3.4); and
- Bare Ground (J.4).

3.3. Habitat Descriptions

The DAFOR scale has been used when categorising species to describe how abundant various species are. D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare.

3.3.1. Scattered Scrub (A2.2)

One buddleia (*Buddleja davidii*) shrub (R) is present on the fence of the north-western corner of the chicken coop area, known as T11 (see Photo 1).

Photo 1: Buddleia Shrub (T11) Next to Ash Tree (T10)



3.3.2. Scattered Trees (A.3)

Broadleaf and coniferous trees are scattered within the chicken coop area and within the boundaries of the main field too. Three trees known as T1, T2 and T3 are mature, coniferous spruce trees (*Picea* sp.); R; see Photo 2). Nearby T1 lies a dead tree stump covered in ivy (*Hedera helix*). Two thin broadleaf trees (T8 and T9) are situated immediately south of T2 and T3 (see Photo 3). The trees T4-T7 within the north of the chicken coop area, are young hawthorn (*Crataegus monogyna*) trees (F; see Photo 4). There are young ash (*Fraxinus excelsior*; F) trees (T10, T18 and T19) to the north-west and north of the chicken coop (see Photos 1 and 4).

There is a row of young and coppiced ash trees (T12-T15 and T17) and a young sycamore (*Acer pseudoplatanus*) that extends north of the barn located at the south of the site (see Photo 5).

A single hawthorn tree (T20) is located within approximately the centre of the main field and 16m from the eastern boundary fence (see Photo 6).

A semi-mature oak (*Quercus* spp.; R) tree (T21) is located approximately in the centre of the western boundary, and approximately 6m north of the telegraph pole that is situated outside of the site (see Photo 7).

Trees T22-T26 (see Photos 8-11) are immature hawthorn trees and an immature beech tree (*Fagus sylvatica*) (T26) scattered around the mature oak tree (T27) in the north-western corner of the site (see Photo 12).

Acer Ecology

Trees T28-T30 include two young cherry (*Prunus* spp.) trees and two young hazel (*Corylus avellana*) trees that are located along the eastern boundary of the site. T31 is a young oak tree that is located south of T28-T30. All of which are situated within a defunct bramble hedgerow (see Photo 13). Trees T32-T38 comprise a row of ash trees (see Photo 14).

Photo 2: Three Spruce Trees: T1 in the Foreground and T2 (left) and T3 (right) in the background



Photo 3: Two Broadleaf Trees (T8 and T9) South of T2 and T3



Photo 4: Hawthorn Trees and Ash Trees in and outside of the Chicken Coop Respectively



Photo 5: Row of Immature Ash Trees and One Sycamore, and Defunct Bramble Hedge



Photo 6: Semi-Mature Hawthorn in the Field (T20)



Photo 7: Semi-Mature Oak (T21) and Bracken on Western Boundary of Site



Acer Ecology

Photo 8: Hawthorn (T22) in North-West of the Site



Photo 9: Hawthorn Trees Near T27



Photo 10: Hawthorn Trees Near (T27)



Photo 11: Beech Tree (T26) Near T27



Photo 12: Mature Oak (T27) at North-West of Site



Photo 13: Two Cherry Trees and an Oak Tree in Bramble Hedgerow on East of the Site



Photo 14: Oak Tree (T31) and Row of Ash Trees (T32-38)



3.3.3. Acid Grassland – Semi Improved – Species Poor (B1.2)

Species poor, semi-improved acid grassland constitutes the majority of the main field. The species composition comprises frequent common bent (*Agrostis capillaris*) (F), crested dog's-tail (*Cynosurus cristatus*) (F), red fescue (*Festuca rubra*) (F), annual meadow-grass (*Poa annua*) (F), sweet vernal-grass (*Anthoxanthum odoratum*) (O), toad rush (*Juncus bufonius*) (F), greater plantain (*Plantago major*) (O), ribwort plantain (*Plantago lanceolata*) (O), meadow buttercup (*Ranunculus acris*) (F), yarrow (*Achillea millefolium*) (F), white clover (*Trifolium repens*) (O), red clover (*Trifolium pratense*) (O), broad-leaved dock (*Rumex obtusifolius*) (O), daisy (*Bellis perennis*) (O), primrose (*Primula vulgaris*) (O), self-heal (*Prunella vulgaris*) (R), sheep's-sorrel (*Rumex acetosella*) (R), curled dock (*Rumex crispus*) (R), dandelion (*Taraxacum officinalis* agg.), common cat's-ear (*Hypochaeris radicata*) (O), bird's-foot trefoil (O), mouse-ear hawkweed (*Pilosella officinarum*) (O), tormentil (*Potentilla erecta*) (O), heath bedstraw (*Galium saxatile*) (O), Harebell (*Campanula rotundifolia*) (R), marsh thistle (*Cirsium palustre*) (R) and common ragwort (*Senecio jacobaea*) (R).

Additionally, two species of waxcap fungi (*Hygrocybe* spp.) are present (TN3) near the in-field hawthorn tree, including scarlet waxcap (*Hygrocybe coccinea*) and butter waxcap (*Hygrocybe ceracea*) (see Photos 18 and 19).

Ant hills support mouse-ear hawkweed (*Pilosella officinarum*), *Polytrichum juniperinum* and *Peltigera* species.

Acer Ecology

Photo 15: South of Semi-Improved Acid Grassland



Photo 16: View of Grassland from North of Site



Photo 17: South-West Corner of Grassland



Photo 18: *Hygrocybe coccinea*



Photo 19: *Hygrocybe ceracea*



3.3.4. Bracken – Continuous (C1.1)

Continuous stands of bracken (*Pteridium aquilinum*; D) are present along the majority of the western boundary of the site, as well as the north of the field. The stand at the north of the site is significantly denser than that found on the western boundary. See Photos 7, 20-22 for further details.

Photo 20: Bracken Along West Boundary

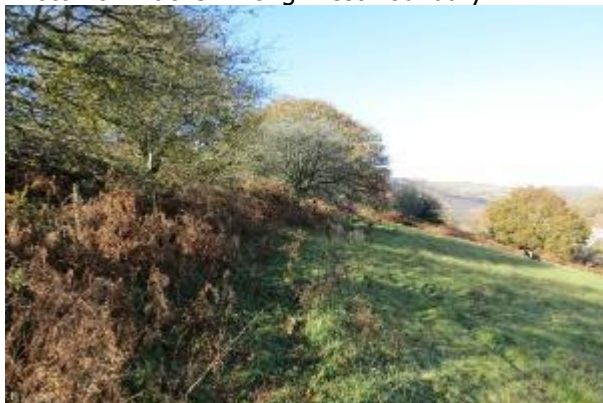


Photo 21: Dense Bracken at North of Site

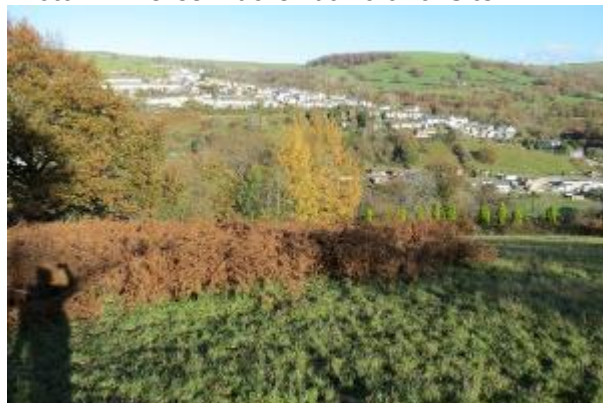


Photo 22: Dense Bracken at North of Site



3.3.5. Tall Ruderal Vegetation (C3.1)

Species-poor tall ruderal vegetation is located in the south-west corner of the main field, immediately south of the bracken stand, as shown in Photo 23. This vegetation comprises species-poor tall-herb vegetation dominated by common nettle (*Urtica dioica*), (O), redshank (*Persicaria maculosa*) (O), spear thistle (*Cirsium vulgare*) (O) and agrimony (*Agrimonia eupatoria*) (R). Frequently occurring species include broad-leaved dock (*Rumex obtusifolius*).

Additionally, where there is vegetation cover within the chicken coop area, it is dominated by common nettle.

There is also a strip of tall ruderal vegetation along the eastern boundary of the site. In this area the vegetation includes Rosebay willowherb (*Chamerion angustifolium*) (F, LA), pendulous sedge (*Carex pendula*) (F), common nettle (F), bramble (A), cock's-foot (A), Yorkshire fog (*Holcus lanatus*) (O) and male fern (*Dryopteris filix-mas*) (O). The invasive species Montbretia (*Montbretia Crocosmia x crocosmiiflora*) (O) is also present.

Acer Ecology

Photo 23: Tall Ruderal Vegetation and Mole Hills (TN2) in South-West Corner of Main Field



Photo 24: Ruderal Vegetation Beyond Fencing on Eastern Boundary of Site



Photo 25: Nettle Dominating with Chicken Coop



Photo 26: Montbretia



3.3.6. Ephemeral and Short Perennial Vegetation (J1.3)

In the area north of the barn and south of the main field is an area of short ephemeral, perennial vegetation (see Photos 27 and 28) comprises annual meadow-grass (*Poa annua*) (D), pineapple-weed (*Matricaria discoidea*) (F), greater plantain (F), ribwort plantain (F), meadow buttercup (F), white clover (O), red clover (O), broad-leaved dock (O), self-heal (O), daisy (O), perennial sow-thistle (*Sonchus arvensis*) (O), lesser swine-cress (*Coronopus didymus*) (O), dandelion (*Taraxacum officinalis* agg) (R) and a forget-me-not species (*Myosotis* sp.) (R).

Photo 27: Ephemeral and Short Vegetation North of Barn



Photo 28: Ephemeral and Short Vegetation North of Barn and West of Chicken Coop Area



3.3.7. Defunct Species-Poor Hedgerow (J2.2.2)

The hedgerow immediately north of the barn (H1) and at the north-eastern and central-eastern boundaries (H2) of the site were dominated by bramble (*Rubus fruticosus* agg.) (see Photos 5, 13, 14 and 29). H2 in particular, had numerous gaps within it.

Photo 29: Defunct Hedgerow North of Barn



3.3.8. Dry Ditch (J2.6)

At the north-west of the field lies a dry ditch immediately north of the fence that defines the boundary of the site (see Photo 30).

Photo 30: Dry Ditch Found at North-West Corner



3.3.9. Fence (J3.4)

Barbed wire fences line the entire boundary of the site. There is a gate present immediately north of the chicken coop area on the eastern side of the site; this gate and the immediate hedgerow and immature trees will be removed to demarcate the beginning of the new access road (see Photo 28).

Photo 31: Gate Where the New Access Road Will Begin



3.3.10. Bare Ground (J4)

Patches of bare ground are present in the chicken coop area and immediately south of the gate that leads to the main field (see Photos 29 and 30).

Photo 32: Bare Ground in Chicken Coop Area



Photo 33: Bare Ground South of the Gate Leading to the Main Field



3.4. Protected and Notable Species

3.4.1. Notable Plant Species

Data Trawl Results

SEWBRc no records of protected plant species or species of principal importance listed under the Environment (Wales) Act 2016 from within 2km of the site proposed for development.

Field Survey Results

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

3.4.2. Birds

Desk Study Results

SEWBReC provided numerous records for birds within 1km of the site. The following table shows nesting birds associated with the habitats present on-site and their conservation status:

Table 3: Records of Birds

Species		Schedule 1	Section 7 list – Environment Act Wales	UK BAP	Red list ¹⁴	Amber list ¹⁵
Barn owl	<i>Tyto alba</i>	Yes				
Bullfinch	<i>Pyrrhula pyrrhula</i>		Yes	Yes		
Common crossbill	<i>Loxia curvirostra</i>					
Cuckoo	<i>Cuculus canorus</i>		Yes	Yes	Yes	
Goshawk	<i>Accipiter gentilis</i>	Yes				
House sparrow	<i>Passer domesticus</i>		Yes	Yes	Yes	
Red kite	<i>Milvus milvus</i>	Yes				
Reed Bunting	<i>Emberiza schoeniclus</i>		Yes	Yes		Yes
Song thrush	<i>Turdus philomelos</i>		Yes	Yes	Yes	
Spotted flycatcher	<i>Muscicapa striata</i>		Yes	Yes	Yes	
Starling	<i>Sturnus vulgaris</i>		Yes	Yes	Yes	

Field Survey Results

A moderate number of birds were recorded on site, including 13 species: blackbird (*Turdus merula*), blue tit (*Parus caeruleus*), buzzard (*Buteo buteo*), (Corvus corone), dunnoek (*Prunella modularis*), goldfinch (*Carduelis carduelis*), great tit (*Parus major*), long-tailed tits (*Aegithalos caudatus*), magpie (*Pica pica*), red kite (*Milvus milvus*), robin (*Erithacus rubecula*), wood pigeon (*Columba palumbus*) and wren (*Troglodytes troglodytes*).

A defunct nest was recorded in T27, as shown in Photo 31.

¹⁴ Bird species of high conservation concern, such as those whose population or range is rapidly declining, recently or historically, and those of global conservation concern.

¹⁵ Bird species of medium conservation concern, such as those whose population is in moderate decline, rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.

Photo 33: Defunct Nest in Oak Tree T27



3.4.3. Bats

Desk Study Results

No bat roost records were received from within 1km of the development site boundary. However, SEWBRc returned records of bats foraging or commuting within 1km, including common pipistrelles (*Pipistrellus pipistrellus*), soprano pipistrelles (*Pipistrellus pygmaeus*), *Myotis* species, noctule bats (*Nyctalus noctula*) and bats of unknown species.

There were no records of bat surveys having been previously undertaken within the same postcode on the Local Authority planning portal.

Field Survey Results

Trees

Only one tree within the site (Tree 27) was assessed as having above low potential for roosting bats. It is described in the table below.

Table 4: Trees Assessed for Bat Potential

No.	Description	Evidence of roosting bats	Potential Roost Features (PRF)	Potential for Roosting Bats
T27	Mature oak tree, approximately 15m tall. Several split branches and peeling bark. 	None	Several split branches and peeling bark.	Moderate

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No.	Description	Evidence of roosting bats	Potential Roost Features (PRF)	Potential for Roosting Bats
				
DBH – Diameter at Breast Height DBH. This refers to the tree diameter measured at 4.5 feet above the ground.				

Bat Habitat Suitability

Collectively, the survey area is assessed as providing high habitat suitability for foraging and commuting bats. Cwm Fedw SINC within and to the west of the site, as well as the Taff Bargoed river that runs to the east of the site, are likely to provide plentiful foraging opportunities for bats. The fields are bordered by treelines and hedgerows which may act as ecological corridors for commuting bats between the site and wider landscape, for example to areas of woodland such as that further east of the site. The wider rural landscape is likely to be dark at night due to the site's isolated location, which adds to the high-quality foraging and commuting habitat around the barn.

3.4.4. Dormice

Desk Study Results

SEWBRc did not return any published records of dormice from within 1km of the site (SEWBRc data 2020).

Field Survey Results

No signs of dormice were found on site. The hedgerows that are present on site are dominated by bramble, which is an important food plant for dormice, however, these hedgerows are in poor condition and offer little ecological connectedness to more suitable, species rich, intact hedgerows. This species is not mentioned further within this report.

3.4.5. Badgers

Desk Study Results

SEWBRc did not return any records of badgers (*Meles meles*) from within 1km of the site.

Field Survey Results

No signs of badger were found during the survey despite the habitat being suitable. This species is not mentioned further within this report.

3.4.6. Reptiles

Desk Study Results

The data search returned one record of a slow worm (*Anguis fragilis*), recorded in 2019 approximately 0.6km to the east.

Field Survey Results

No reptiles were incidentally recorded during the survey, although a targeted reptile survey was not undertaken at that time. No evidence of reptiles such as sloughed skins was recorded.

Unlike some species, the precise floristic composition of habitats is often irrelevant to reptiles. Instead, the site's physical structure and thermal properties are more important (Edgar *et al.* 2011). The site supports bracken-grassland ecotones which could be suitable for basking and hibernation behaviour. Additionally, the bracken is well connected to the surrounding landscape.

In addition, the grassland and ruderal vegetation along the eastern site boundary has potential to support reptile species.

Field Survey Results

SEWBrEC returned four records of common hedgehog (*Erinaceus europaeus*) within 1km of the site, the nearest of which was recorded 0.61km to the east in 2019.

3.4.7. Other Mammals

Desk Study Results

SEWBrEC returned four records of common hedgehog (*Erinaceus europaeus*) within 1km of the site, the nearest of which was recorded 0.61km to the east in 2019.

Field Survey Results

Evidence of molehills (*Talpa europaea*) are near the in-field hawthorn shrub (TN4) and the south-west of the field (TN2) (see Photo 31). It is likely that a range of common small mammals are present on the site, including shrews, voles, mice, hedgehog and fox (*Vulpes vulpes*) etc, occurring either as resident species or whilst foraging and/or commuting.

Photo 31: Mole Hills Near In-Field Hawthorn



3.4.8. Invertebrates

Desk Study Results

The data search returned no records of notable invertebrate records from within the study area itself.

The data search returned one record of small pearl-bordered records within 1km of the site (SEWBRc data 2020). The record was made in 2019 approximately 0.84km to the north-west of the site.

Field Survey Results

No violet species were present on the site, and therefore there was considered to be negligible potential for marsh Fritillary & Small Pearl-Bordered Fritillary breed within the site. However, the site connects with habitats which support small pearl-bordered butterflies and there is potential that this butterfly may (at least) occasionally use the site.'

No incidental observations of invertebrates were recorded during the survey. Invertebrates are not mentioned further within this report.

4. Ecological Evaluation, Legislation and Impact Assessment

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

4.1. Statutory and Non-Statutory Nature Conservation Designated Sites

Protection and enhancement of the natural environment is considered under Policy AS6 of the Merthyr Tydfil Local Development Plan. Details of Policy AS6 are provided in Appendix 2.

4.1.1. Cwm Bargoed SINC

Assessment of Ecological Value

The majority of the site is part of Cwm Bargoed SINC. SINC's 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 entire site is at least notionally assessed as being of District value for wildlife. However, the SINC designation guidelines (SWWSP 2004) allow for the inclusion of small areas of non-qualifying habitats where, for example, these are in mosaic with other more-valuable habitats, or where they form valuable buffer or adjunct habitats etc. Considered in isolation, none of the habitats of the site are considered to be of District value for wildlife and are assessed as being unlikely to meet the SINC designation guidelines in themselves. The site is somewhat degraded and modified and includes invasive species such as montbretia.

Assessment of Potential Development Impacts

Cwm Bargoed SINC as a whole is certainly of at least District value for nature conservation, as defined here. However, the extent to which the site under consideration meets the criteria for SINC designation is extremely debatable.

The development proposals are considered unlikely to cause any significant adverse impact to the viability of the SINC as a whole. However, there is still some scope for adverse impacts to the SINC as a result of the development. The main impacts are likely to be:

- Potential for invasive plants or garden escapees naturalising on the SINC and compromising its conservation value;
- Disturbance through increased human activity. This includes increased levels of artificial illumination and potential for increased noise which may affect wildlife. Any increased footfall on the SINC could result in erosion and trampling of plants; and
- Predation of wildlife due to domestic cats.

Local cumulative effects as a result of these impacts could lead to a reduction in species diversity and/or abundance.

4.2. Assessment of Ecological Value of On-site Habitats of Importance

Hedgerows are the only habitat on site that is listed as a 'habitat of principal importance for conservation of biological diversity in Wales' (Environment Wales Act 2016; Wales Biodiversity Partnership, 2016). However, the hedgerows on site are defunct and species-poor and assessed as having 'local' value.

The hedgerow on site will not be affected by the works.

4.3. Assessment of Ecological Value of On-site Habitats Which Do Not Qualify as Important Habitats

The habitat that will be directly affected by the works: scattered broadleaved trees (A.1), scattered coniferous trees (A3.2), semi-improved acid grassland (B1.2), tall ruderal vegetation (C3.1); ephemeral and short perennial vegetation (J.3) and bare ground (J.4) are LL assessed as being of no greater than Local value for wildlife.

These habitats all likely to be of at least some value to fauna such as common nesting birds, foraging bats, common invertebrates and possibly also common reptiles. However, they are considered unlikely to be exceptional in this regard, and it is very unlikely that any key species are critically dependant on the site for their survival.

4.4. Assessment of Impacts of Invasive Species

Presence of Montbretia

Montbretia is present in the ruderal vegetation in the eastern part of the site.

Legislation

Montbretia is s a Schedule 9 invasive plant. This act specifically prohibits the reckless or deliberate spreading of this species.

Assessment of Potential Development Impacts

The proposed development could also potentially result in the further spread of montbretia, through the accidental distribution of soils containing root fragments, underground corms or rhizomes during works. The spread of this species should be prevented through the implementation of appropriate mitigation measures. The eradication of montbretia from the site would be desirable if possible.

4.5. Protected and Notable Species

4.5.1. Birds

Assessment of Ecological Value of Site for Birds

As a whole, the site is considered to be of local value to birds. It contains individual features that provide moderate foraging and nesting habitats for a range of species, but all these features are widespread and common in the surrounding landscape.

Legislation

All wild British birds (while nesting, building nests and sitting on eggs), their nests and eggs (with certain limited exceptions) are protected by law under Section 1 of the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000. Included in this protection are all nests (at whatever stage of construction or use) and all dependent young until the nest is abandoned and the young have fledged and become independent.

Impact Assessment of Proposed Development on Birds

The loss of habitats on site will result in a limited loss of foraging and potential nesting habitat for a range of scrub and ground nesting species. Recommendations to avoid destruction or disturbance of nests and to enhance retained areas of the site for birds are included in Section 5.

4.5.2. Bats

Assessment of Ecological Value of Site for Bats

The site has potential to support foraging and commuting bats. A bat survey has been undertaken of the barn on the site which found no evidence of use by roosting bats.

The habitats on site have potential to support foraging bats, particularly the broadleaved and coniferous trees.

Legislation

All species of bats and their roosting sites are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019. All species of UK bats are designated as ‘European protected species’. Seven species of bat (soprano pipistrelle (*Pipistrellus pygmaeus*), barbastelle (*Barbastella barbastellus*), Bechstein’s (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe bats (*Rhinolophus ferrumequinum*)) are listed under Section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales.

Impact Assessment of Proposed Development on Bats

The construction of the new residential development may result in additional light spilling on to the adjacent Cwm Bargoed SINC, thus potentially disturbing foraging and commuting bats.

A sensitive lighting strategy must therefore be developed, as detailed in Section 5.

4.5.3. Reptiles

Assessment of Ecological Value of Site for Reptiles

The areas of semi-improved acid grassland are considered to be too heavily grazed to offer potential for reptiles. The stands of bracken that will not be affected by the works and the area of ruderal vegetation along the eastern part of the site are considered for supporting reptiles.

Legislation

With the exception of smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) (which are afforded greater protection), common reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). They are given so-called 'partial protection', which prohibits the deliberate killing or injury of individuals. The habitats of common reptiles are not specifically protected. These species are listed as priority species in Wales under Section 7 of the Environment (Wales) Act 2016.

Impact Assessment of Proposed Development on Reptiles

The proposed works will result in the loss of habitat which is suitable for supporting reptiles. Clearance of the vegetation may therefore result in the accidental killing or injury of reptiles. Recommendations to minimise harm being caused to reptiles during site clearance are outlined in Section 5.

5. Required Actions

The following recommendations are likely to be secured through planning conditions. They have been developed based on the development proposals available at the time of writing. The implementation of these recommendations will ensure compliance with Section 6 and 7 of the Environment (Wales) Act 2016, Planning Policy Wales version 10 (Welsh Government, 2018)¹⁶, TAN 5 *Nature Conservation and Planning* (2009), The Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019 and help to avoid or minimise adverse impacts on the environment and protected species, mitigate and compensate for losses where damage is unavoidable and promote opportunities to enhance biodiversity. The Environment (Wales) Act 2016 and Planning Policy Wales version 10 (Welsh Government, 2018) stipulate that developments must provide net benefit for Biodiversity.

5.1. Cwm Bargoed SINC

Land take of Cwm Bargoed SINC should be minimised as far as possible. The current proposed access track is wide and sweeping. If possible, the access route should be revised so that land take is reduced.

5.2. Precautionary Measures

5.2.1. Vegetation Clearance

To avoid adverse impacts to nesting birds, the clearance of vegetation including trees, scrub and ruderal vegetation will be undertaken from September to February outside of the bird breeding season (March to August inclusive). Alternatively, any works undertaken from March to August will be subject to a check for nesting birds by a suitably qualified ecologist immediately prior to removal of such habitats. If any active nests are found these will be protected, along with an appropriate buffer zone of 5m, until the nesting is complete, and the young have fledged¹⁷.

5.2.2. Species Deterrence Measures – Reptiles

Measures to prevent direct impact to reptiles should concentrate primarily on minimising the risk of causing death and injury to individuals during any site clearance and construction operations. This should be achieved through the use of ‘species deterrence’ measures in the run-up to the commencement of works on-site. These measures will apply in the areas of ruderal habitat. The other habitats on site are not considered to offer potential for supporting reptiles.

Areas of ruderal vegetation to be cleared will be strimmed or brush cut to a height of approximately 300mm during this period, to make the area less suitable for reptiles or sheltering hedgehogs. Arisings will be removed immediately from site. The remaining vegetation will be left for at least 48 hours and then cut down to near ground level and left for another 48 hours prior to works commencing. This will make the areas

¹⁶ Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions ... and in so doing promote the resilience of ecosystems. Development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.

¹⁷ Some bird species, especially raptors and owls remain dependent upon the nesting site after fledging and so depending upon the species the nest site may need to be protected for a period of time after fledging.

unattractive to reptiles prior to development, thus encouraging them to leave the area. Mechanical clearance methods (e.g. gang-mowing, flail-cutting etc.) must not be used (to avoid killing wildlife and committing an offence).

Any ground level clearance and disturbance of soils will take place during the active season for reptiles from April to early October to avoid hibernating reptiles.

5.3. Mitigation Measures

5.3.1 Lighting

The lighting design of the site (during both construction and post-development stages) will be of a 'bat friendly' specification and kept to the minimum level which meets the needs of security and health and safety.

Lighting of individual dwellings will be installed at low-level only (i.e. no higher than eaves level and lower than 2.4m) and directed downward (i.e. below the horizontal plane). Front and side hoods/shields or cowls will be installed to prevent upwards and horizontal light spill.

Any security lights used will operate off a passive infrared (PIR) motion sensor sensitive to large objects only, to avoid constant triggers by bat passes and with timers set on a short duration (i.e. a maximum 'on' time of one minute (ideally less) to reduce the amount of 'lit time'. The bulbs in the lights will ideally be low intensity (i.e. circa 11 watts), glass-glazed and the light source will either be compact fluorescent light sources fitted with appropriate UV filters, low pressure sodium bulbs, or warm light LED bulbs.

5.3.2 Landscaping

Any landscaping in the site will use native shrubs and trees which are of UK provenance. Berry and nut producing species should also be used which will increase foraging opportunities for numerous animal species. Shrub species recommended include common hawthorn, blackthorn, hazel, guelder rose, rowan, bird cherry and holly.

This will aim to provide compensatory nesting habitat, as well as compensatory foraging habitat, for invertebrates and birds.

5.4. Compensation and Enhancement Measures

5.4.1 Eradication and Control of Montbretia

Montbretia will be eradicated from the site as far as possible and appropriate measures implemented to prevent the accidental spread of this species during the development. Invasive plant material is considered a 'controlled waste' and must be disposed of in accordance with, and environmental permit issued under, the Environmental Permitting (England and Wales) Regulations 2007.

5.5. Longevity of Report

If development works do not begin within eighteen months to two years of the date of this report of this report, an update survey is likely to be required in accordance with guidance from Natural Resources Wales

(NRW)¹⁸, CIEEM (2019) and BS 42020:2013¹⁹, to determine if conditions have changed since those described in this report.

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¹⁸ As set out in Point 5 of the NRW *Bat Surveys - Frequently Asked Questions* and Point 4 of the guidance included within the NRW European Protected Species Development Application Form.

¹⁹ As set out in Section 6.2.1, point 7 which states that ecological information should not normally be more than two/three years old, or as stipulated in good practice guidance).

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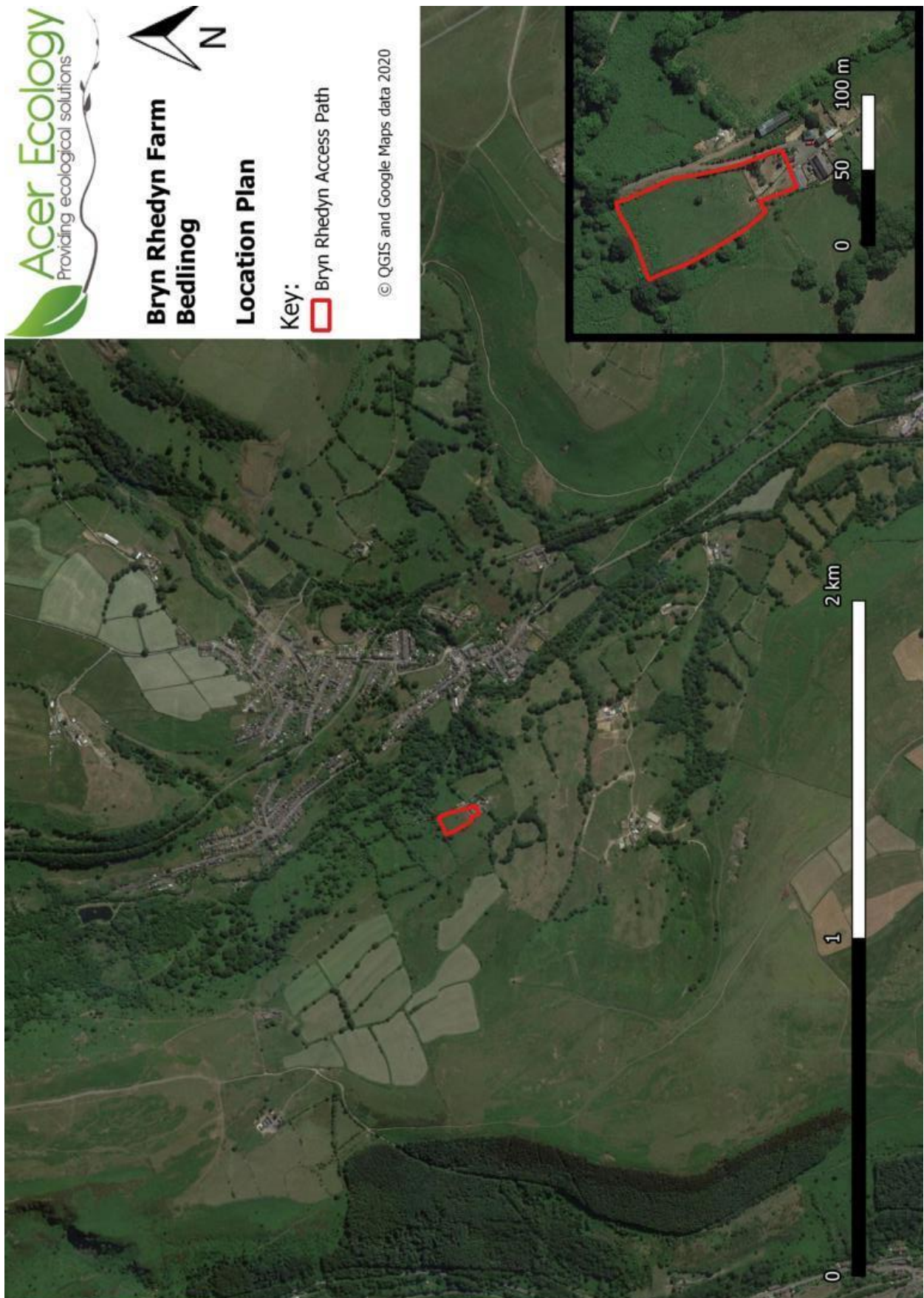
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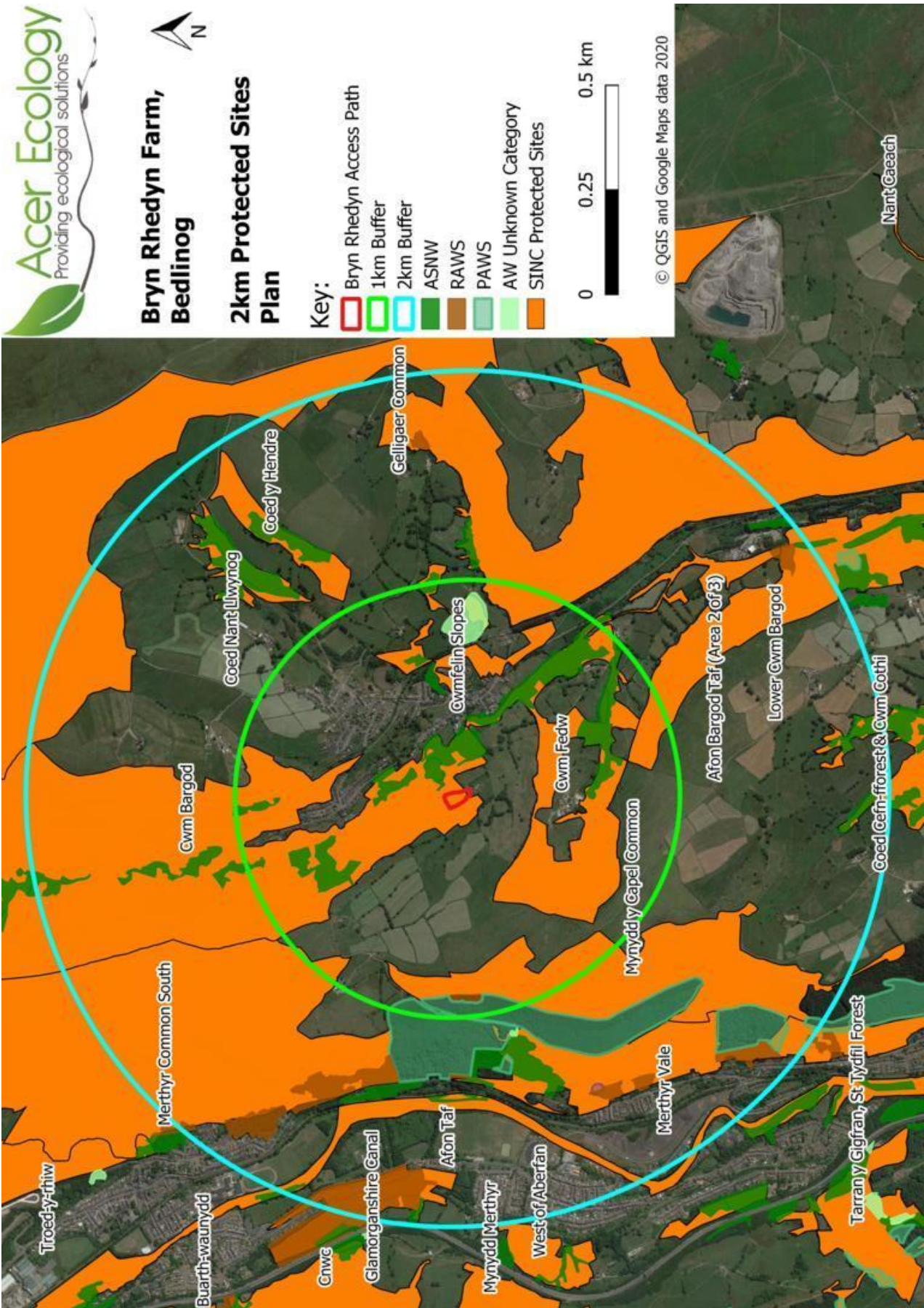
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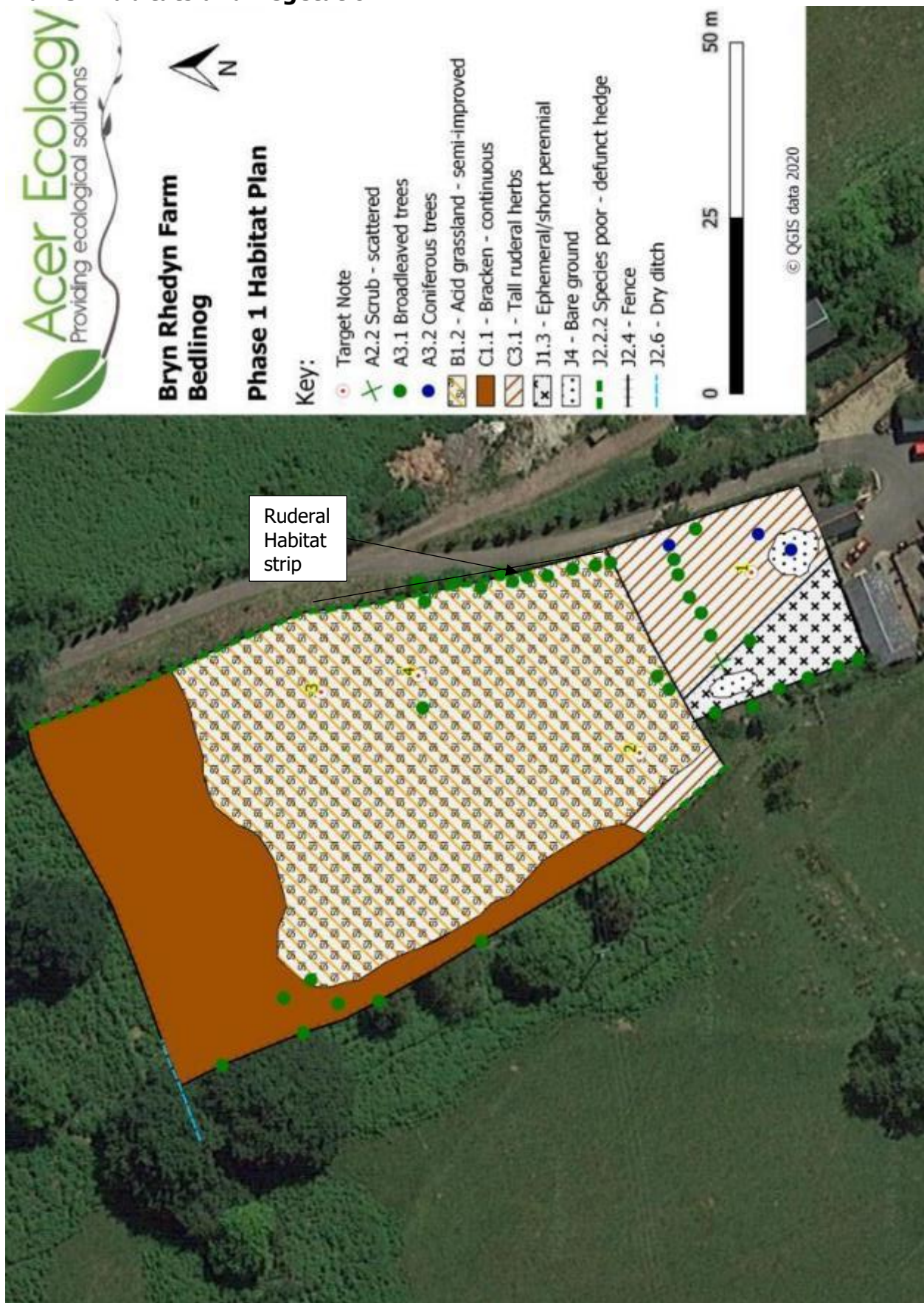
Plan 1: Site Location



Plan 2: Site Location and Protected Sites (2km Buffer)



Plan 3: Habitats and Vegetation

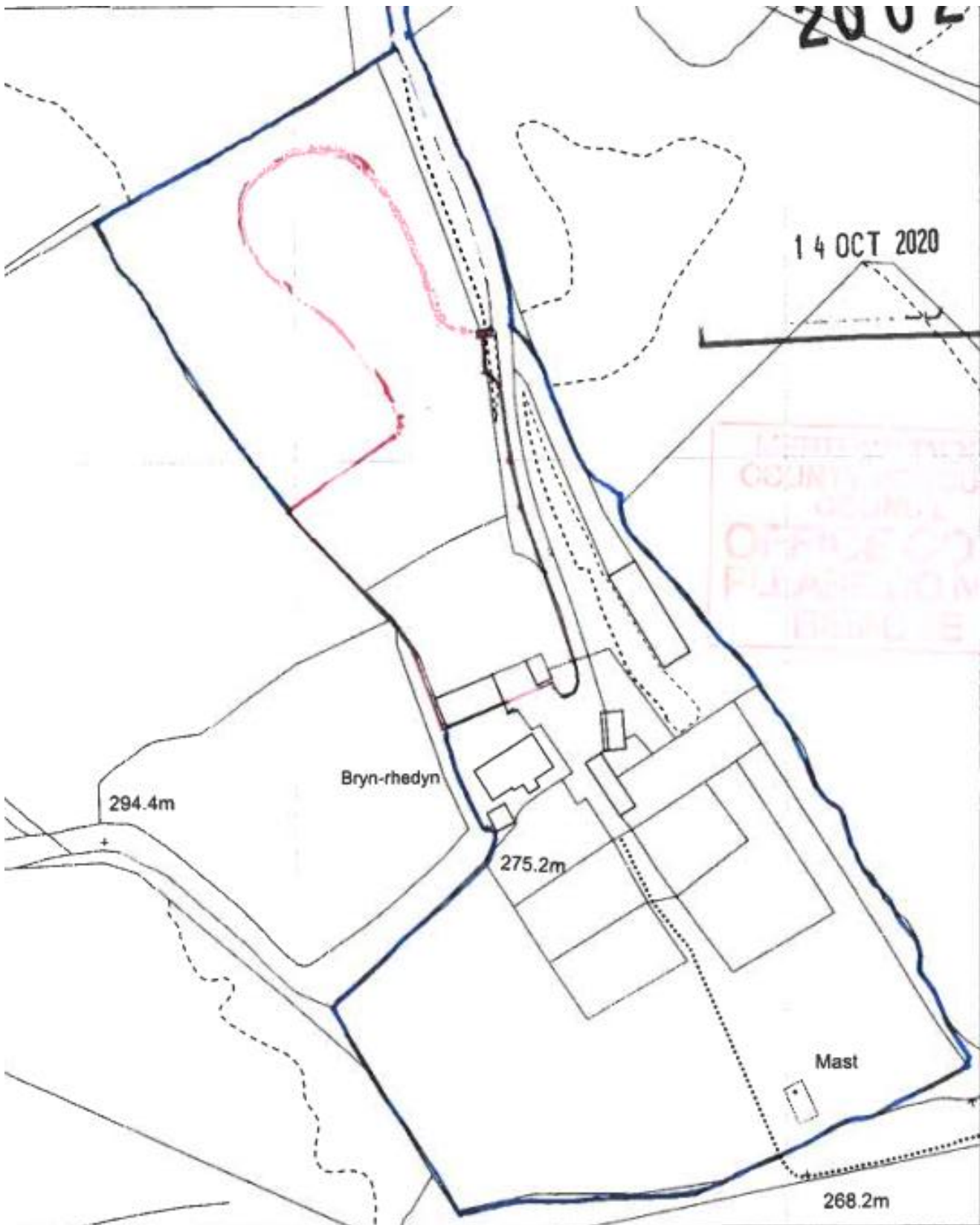


Plan 4: Location of Water Bodies within 500m of Site

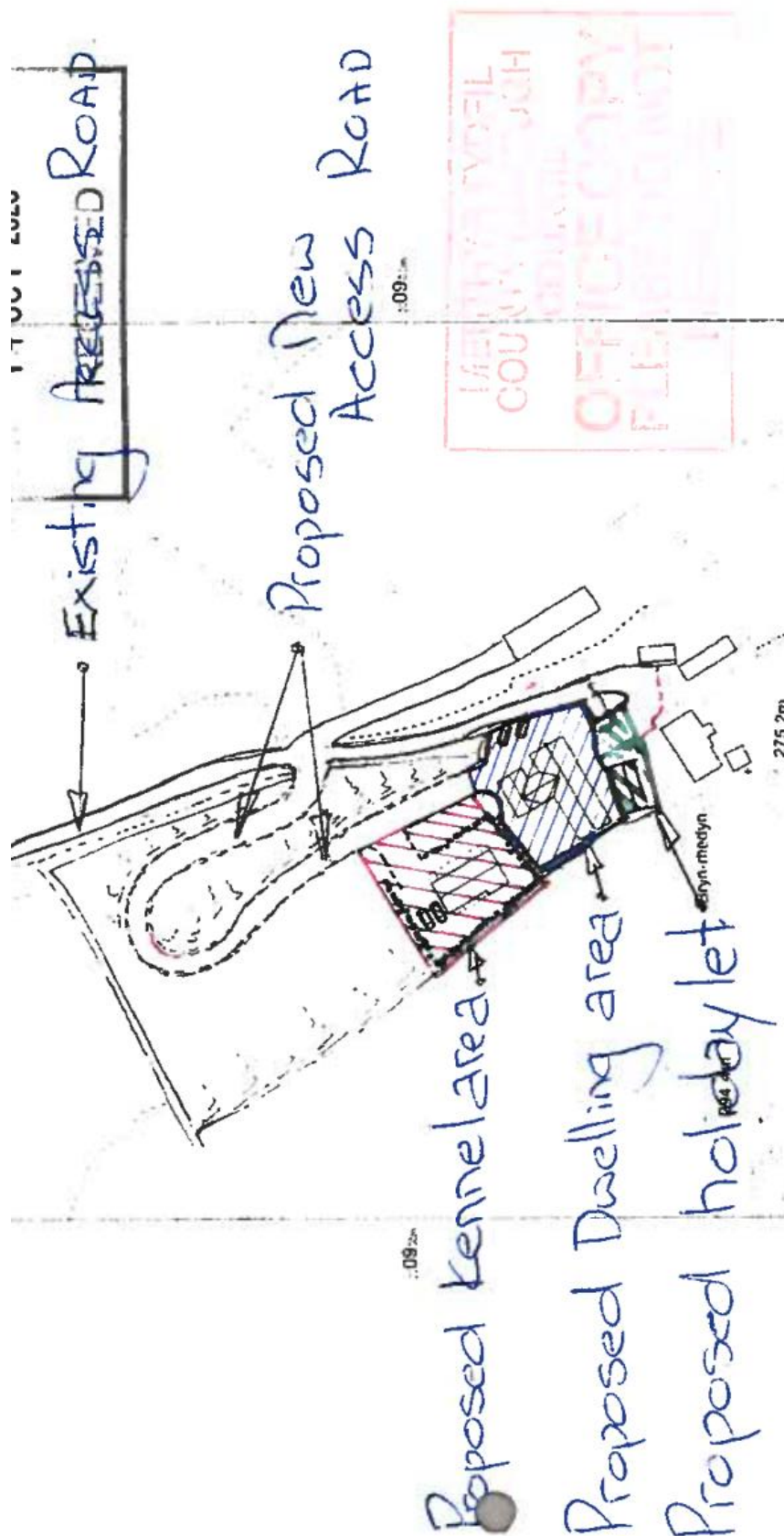


Appendix 1: Existing Plan and Proposed Development Works

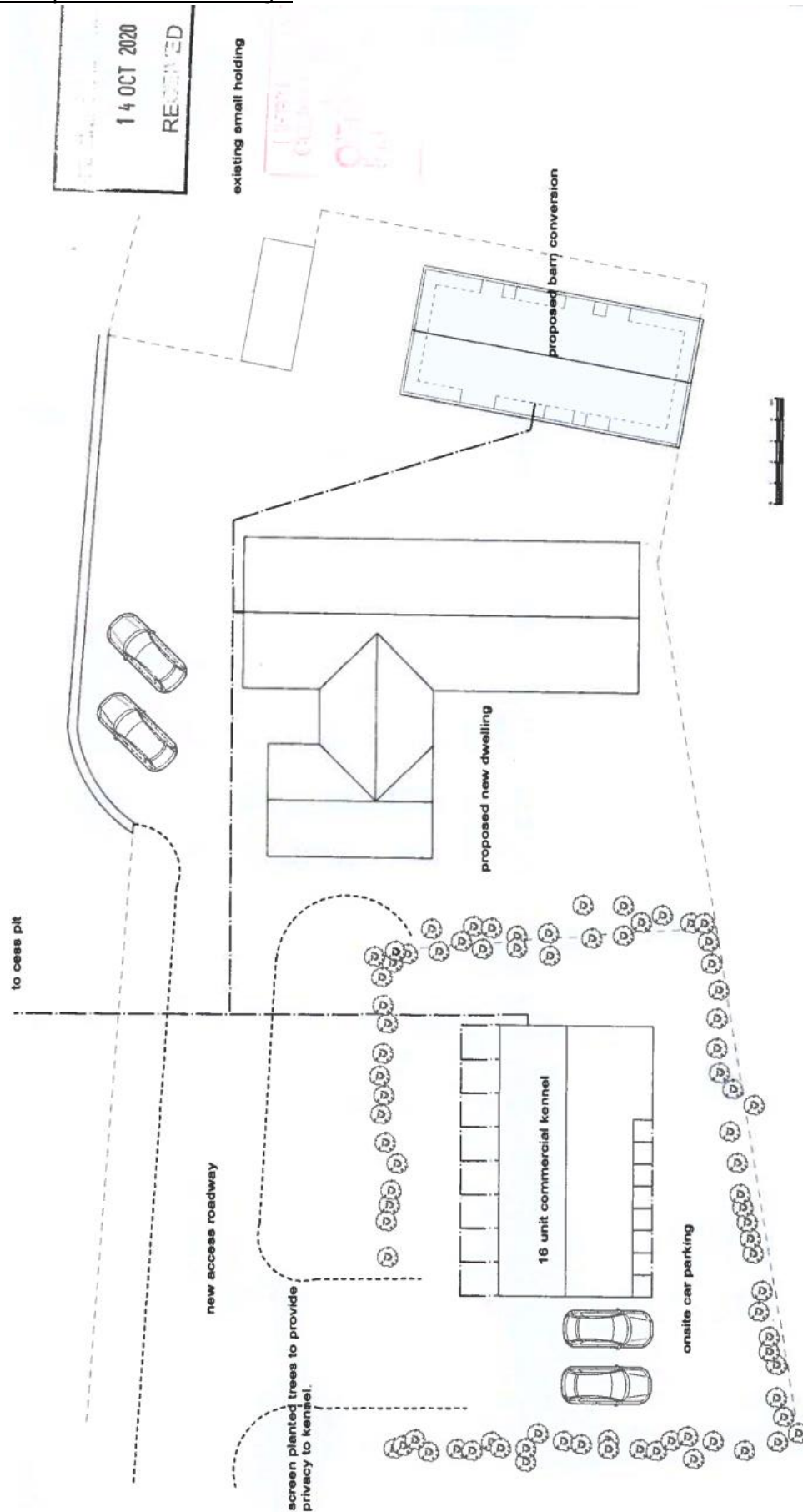
Existing Site Plan:



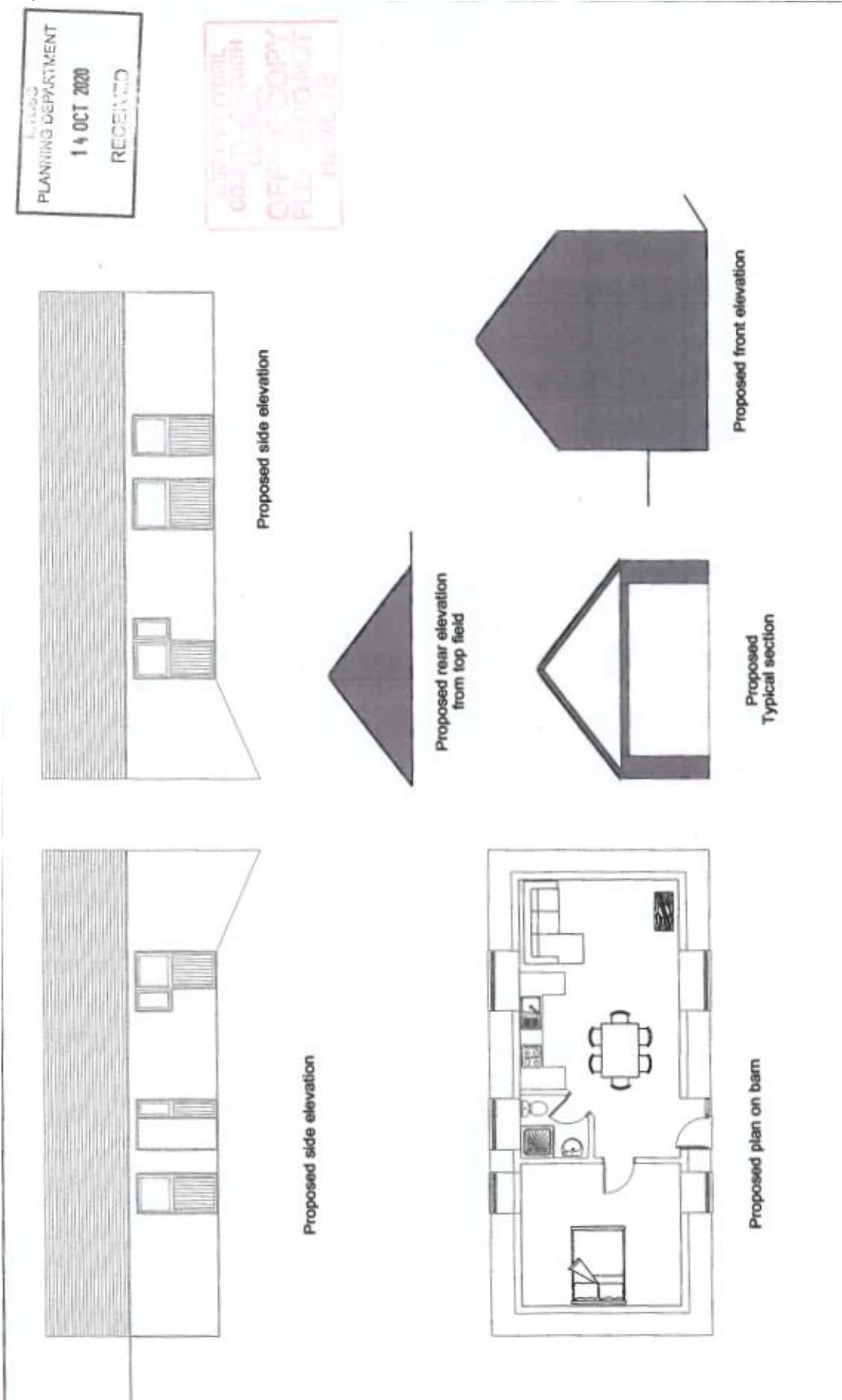
Proposed Site Plan Showing New Access Road:



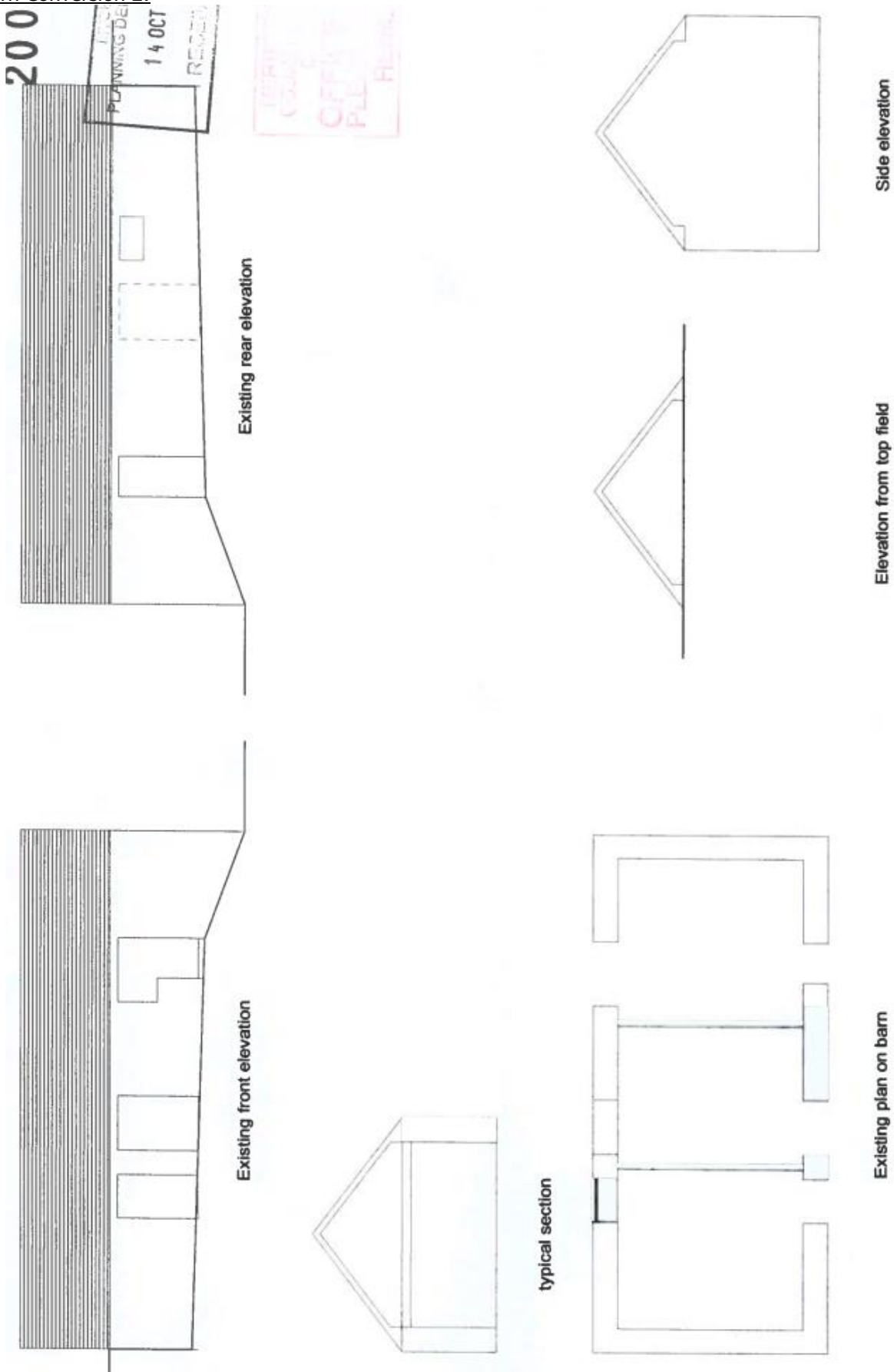
Proposed Development Plan of Buildings:



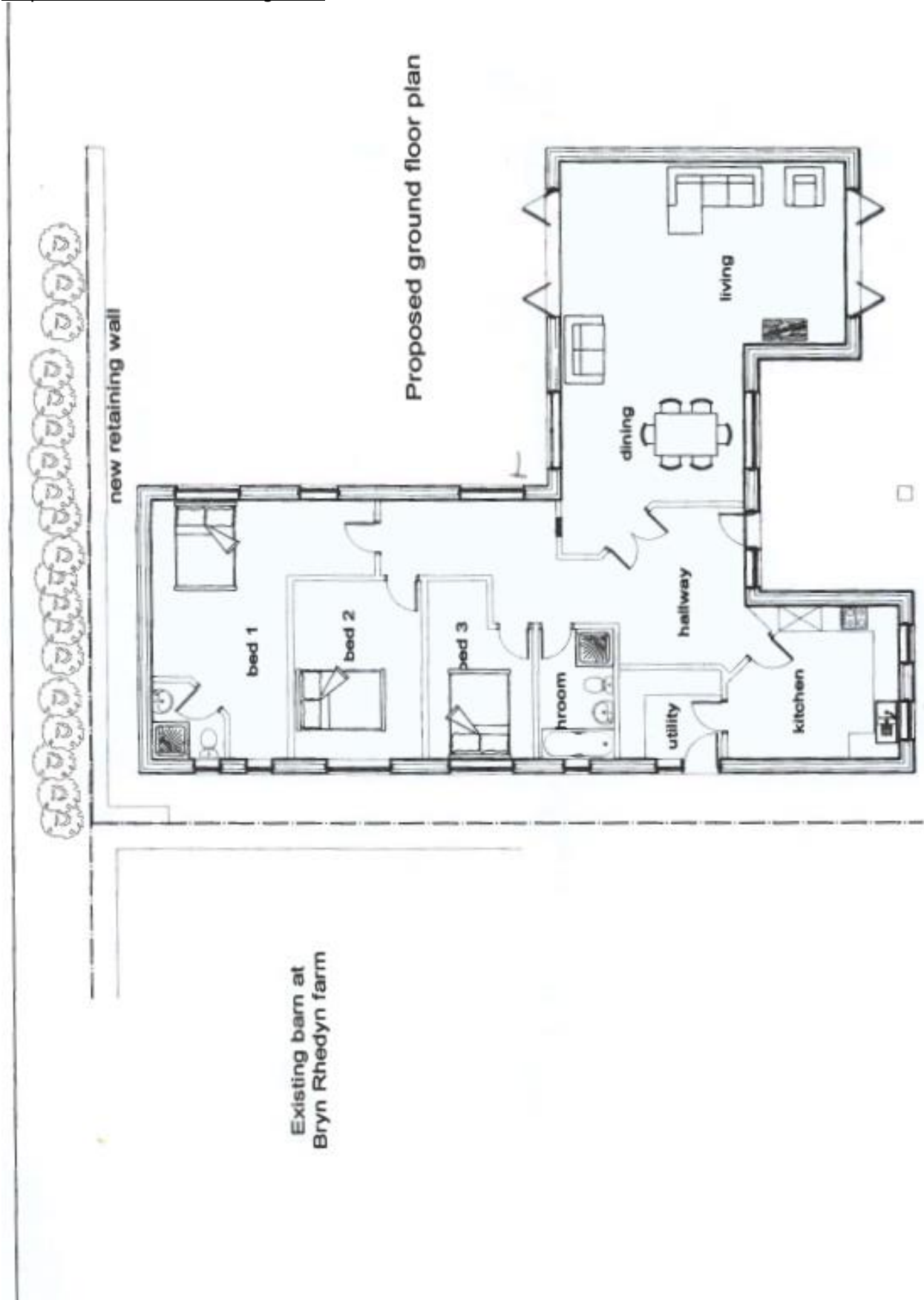
Proposed Barn Conversion:



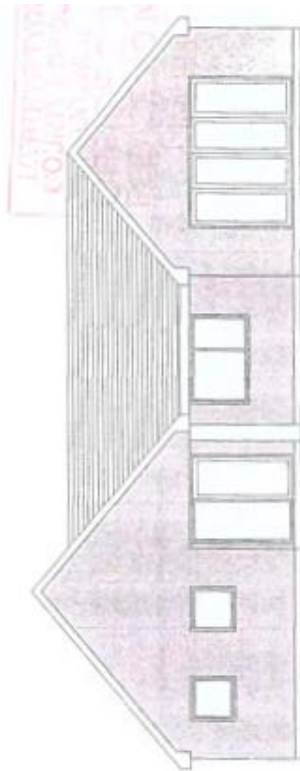
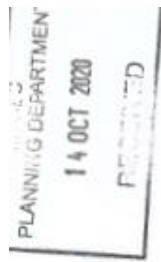
Barn Conversion 2:



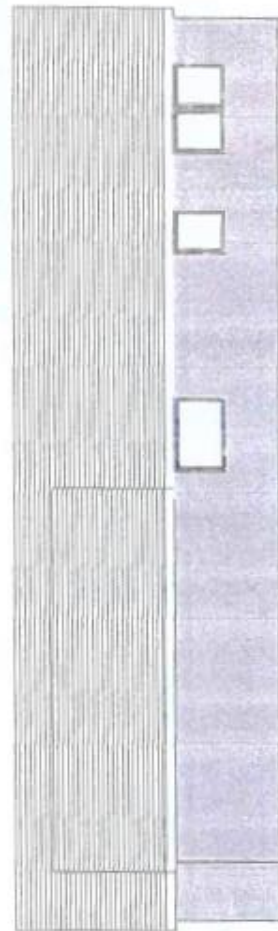
Proposed Kennel and Retaining Wall:



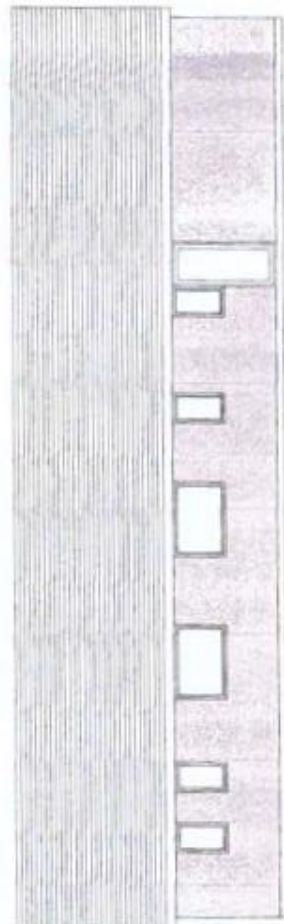
Proposed Kennel:



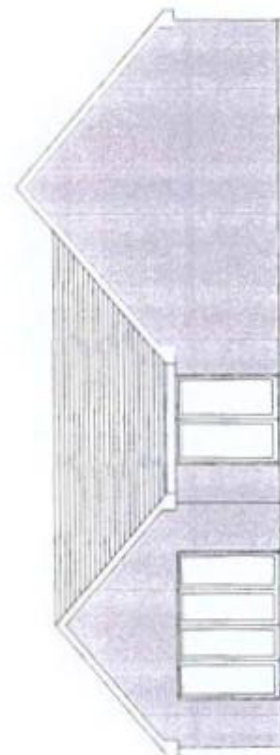
Proposed front elevation



Proposed side elevation



Proposed side elevation



Proposed rear elevation

Reconstituted welsh slate roof.
black finished upvc fascia and rainwater goods
white smooth render finish to walls.
anthracite grey upvc windows and doors

Appendix 2: Legislation and Policy Relating to Non-Statutory Designated Sites and Planning Policy

SINCS

SINCS 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 (2016)* and *Technical Advice Note (Wales) 5: Nature Conservation & Planning*.

In Merthyr Tydfil County Borough, SINCS are also afforded protection under Policy BW5 & AS6 of the Merthyr Tydfil Local Development Plan.

Merthyr Tydfil County Borough Policy AS6: Local Nature Conservation Designations

Using published scientific criteria, Sites of Importance for Nature Conservation have been designated as shown on the Local Development Plan (LDP) Proposals Map. Applications for development affecting these sites and/or the Cwm Taf Fechan Local Nature Reserve, will not be permitted unless full account has been taken of the relevant features so as to prevent damage to their conservation value. Where appropriate, planning conditions or a planning agreement will be employed to safeguard and/or enhance features, or to provide appropriate mitigation and/or compensatory measures.

Policy Justification

Sites of Importance for Nature Conservation (SINCS) are sites of substantive nature conservation value and are the most important places for wildlife outside legally protected land such as Sites of Special Scientific Interest (SSSIs). Their importance is significant in a more localised context than internationally or nationally designated sites but unlike SSSIs, SINC designations are non-statutory. They can however add value to the planning process in appropriate areas where more mainstream planning policies do not provide the necessary protection.

SINC Proposals

A successful SINC system requires rigorous scientific criteria to enable sites to be identified. The criteria used for the LDP are the Criteria for the Selection of Sites of Importance for Nature Conservation in the County Borough Councils of Caerphilly, Merthyr Tydfil and Rhondda-Cynon-Taff (Mid Valleys Area) (2008) which have resulted in 60 areas being designated across the LDP area for their particular local nature

conservation interest. All SINC are shown on the LDP Proposals Map. A SINC Survey Summary Report has also been produced as supporting documentation to the Plan.

The distribution of SINC accords with the spatial priorities of the LDP and in making planning and development decisions, the Council will afford appropriate weight to SINC in order to secure the well-being of individual features and to maintain or enhance the character and integrity of the wider designation. SINC are not intended to unduly restrict acceptable development - rather, their primary role is to ensure that development proposals affecting a SINC site receive proper consideration at the planning application stage.

Development Affecting SINC

In the cases where landowners are not currently aware of SINC designations, the presence of a SINC in a proposed development site will usually be identified during a preapplication enquiry to the Council. At that stage, the extent and type of development will be considered against the features of the SINC and requirements for ecological survey and assessment work will be identified to the planning applicant. Advice will be given on the extent and scope of work required in order to help inform the Council's final planning decisions.

The above policy is intended to apply to development proposals affecting all sites with non-statutory nature conservation designations. For this reason, it is also relevant to the existing Cwm Taf Fechan Local Nature Reserve, which is managed by the Council.

Related Strategic Objectives

SO5 - To manage natural resources wisely avoiding irreversible damage in order to maintain and enhance their value for future generations; and

SO11 - To ensure the continued protection and enhancement of the natural, cultural, built and historic environment.

Environment (Wales) Act 2016

The Environment (Wales) Act Section 6 duty, or the Biodiversity Duty, requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. In fulfilling this duty, planning authorities must have regard to the list of habitats and species of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016.

The Section 6 duty requires that developments should not be permitted which result in net loss of value to biodiversity and must seek to achieve biodiversity net gain. Where net loss cannot be achieved through avoidance or mitigation, compensation is required but it should be noted that ancient woodland cannot be compensated for.

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 regionally significant areas of BAP habitats or large and viable populations 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.

County Value/District Value

Site identified as a Site of Importance to Nature Conservation (SINC) at the district level; meeting South Wales Wildlife Sites Partnership (SWWSP) 2004 published designation criteria but falling short of SSSI designation criteria, whether designated as a SINC or not. Ancient woodlands and sites supporting regionally significant areas of UK BAP habitat. Large scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/ LBAP or threatened species (other than badger).

High Local

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. Moderate scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/LBAP or threatened species.

Local Value

Old hedges, woodlands, ponds, significant areas of species-rich grassland, small scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/LBAP or threatened species. 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 dependent upon it for their survival in the area.

Site Value (within the immediate zone of influence)

Low-grade and widespread habitats. Woodland plantations, structured planting, small areas of species-rich grassland and other species-rich habitats not included in the UK or Local BAP.

Negligible

No apparent nature conservation value.