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Wisdom of Equus, Gwern y Gaseg Road, Coedpoeth
PRELIMINARY ECOLOGICAL APPRAISAL



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WISDOM OF EQUUS, GWERN Y GASEG ROAD, COEDPOETH: PRELIMINARY ECOLOGICAL APPRAISAL

REPORT PREPARED FOR:

Wisdom of Equus

SITE LOCATION:

Bryn Tegla
Top Talwrn
Coedpoeth
LL11 3BY

National Grid Reference (NGR): SJ27985193

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This report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's *Guidelines for Preliminary Ecological Appraisal* (CIEEM 2017), *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater Coastal and Marine, version 1.2* (CIEEM 2018) and *Guidelines for Ecological Report Writing* (CIEEM 2017). It has also been prepared in accordance with CIEEM's *Code of Professional Conduct* (CIEEM 2022) and in compliance with *BS42020 Biodiversity – Code of Practice for Planning and Development*.

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1 INTRODUCTION AND BACKGROUND

- 1.1 Wilkinson Associates was commissioned by [redacted] to carry out an ecological survey in connection with a planning application for change of use of the land from agricultural to equestrian, the erection of a six stall American barn and siting of two mobile field shelters. The application involves land adjacent to Bryn Tegla, Top Talwrn, Coedpoeth near Wrexham ("the Site").
- 1.2 Figure 1 shows the location of the Site, which comprises a group of small fields located to the north west and south east of a private access lane off Gwern y Gaseg Road.

Figure 1: Location Plan



- 1.3 The survey findings have been presented in the form of a Preliminary Ecological Appraisal Report (PEAR). In this instance, the outcome of the PEA has identified that no further surveys are needed, sufficient detail is available in relation to scheme design and sufficient information regarding ecological impacts/mitigation/enhancement measures is presented to allow 'certainty'. For these reasons, it is appropriate to submit the PEAR to accompany the planning application for the proposal.
- 1.4 The PEA includes an Extended Phase 1 Habitat Survey and a desk study. The survey and reporting have been carried out by Jan Wilkinson MCIEEM, an ecologist with more than 20 years' experience of undertaking ecological assessments, protected species surveys and licensed mitigation work.
- 1.5 A sketch plan showing the proposed layout of the barn, mobile shelters, parking area and grass track is included within Figure 2.

2 METHODS

2.1 Desk study

2.1.1 A desk study was carried out to identify designated sites and protected or priority habitats and species which could potentially be affected by the proposals. The area of search for the desk study was 1 km and the following data sources were included:

- Online databases including the Multi-Agency Geographic Information for the Countryside (MAGIC) database, NBN Atlas and Natural Resource Wales' geographic information interactive map viewer (BETA version) were searched for any relevant records including designated sites and priority habitats.
- Ordnance survey maps and online aerial photographs were consulted to provide background information on habitats and land use on the Site and in the surrounding area.
- A formal data search for designated site, habitat and species records held by Cofnod was also carried out.

2.2 Extended Phase 1 habitat survey

2.2.1 An Extended Phase 1 habitat survey was carried out with the objective of recording the type and extent of habitats present on the Site and their potential to support sensitive ecological features such as protected and priority species.

2.2.2 The survey method was based on the standard technique for Phase 1 habitat survey (JNCC, 2010), which involves recording the habitats present using a standard set of colour codes and preparing target notes to describe features of particular ecological interest. The technique also involves preparing a list of dominant and characteristic plant species and any evidence of protected or priority species. A broad assessment is also made of the habitats surrounding the Site and in the local area.

2.2.3 An initial survey was carried out on 20th October 2021 and the weather at the time of the survey was dry with sunny intervals. An updated survey was carried out on 15th March 2023. There were no access or other constraints which adversely affected the survey findings on either occasion.

3 RESULTS

3.1 Designated sites

Statutory sites

- 3.1.1 There are no statutory sites of National or International importance within 1 km of the Site.

Non-statutory sites

- 3.1.2 We understand that the fields which comprise the Application Site have been designated as a Wildlife Site (W212 Roseburn Fields) on the basis of a survey carried out in 2012. The Cofnod entry for this site contains the following description:



- 3.1.3 In summary, the three fields were described as semi-improved grassland. The larger field to the west of the track was grazed by ponies and the two smaller fields to the east of the track were cut for hay.

- 3.1.4 The current habitats on the Site are described in Section 3.4.

3.2 Priority habitats

- 3.2.1 The DataMapWales resource¹ shows the locations of Priority Habitats; none of the records are within or in close proximity to the Site. The closest record is a small Traditional Orchard located approximately 450m to the south west.
- 3.2.2 The Cofnod and NRW databases include records of Phase 1 habitats. These show the Site as comprising improved grassland, with scattered broad-leaved trees along the northern and eastern boundaries adjacent to minor watercourses.

3.3 Protected and notable species records

- 3.3.1 The Cofnod dataset includes information on protected species records within 1 km of the Site. The following are of particular note:
- Amphibians: there are no records of great crested newt *Triturus cristatus* within a 1 km radius of the Site. A search of Ordnance Survey maps and aerial photographs indicates that there are no ponds potentially suitable for great crested newts within 500m.
 - Reptiles: there are records of slow-worm *Anguis fragilis* and grass snake *Natrix helvetica* from a site located approximately 600m from the Application Site. The records relate to a translocation exercise carried out in 2015.
 - Mammals: there are several records of hedgehog *Erinaceus europaeus*, the closest of which is 75m from the Site.
 - There are no bat records within 500m of the Site.

3.4 Phase 1 habitat survey results

- 3.4.1 The top half of Figure 2 shows a plan of the site, annotated to show the proposed development features and the habitat types present. Below this is an aerial photograph which has been annotated to show the locations of the habitat types discussed in this section. A selection of photographs showing the habitats and features discussed in the text is included as Figure 3.
- 3.4.2 Target Notes describing the habitats present are included in Table 1. A list of plant species recorded during the survey visits is included as Table 2. Photographs of the habitats present are included within Figure 3.
- 3.4.3 The following paragraphs describe the habitats recorded within the Site and around its boundaries.

¹ https://datamap.gov.wales/maps/new?layer=geonode:gwc21_priority_habitat_high_sensitivity#/

Habitats and flora: fields

- 3.4.4 The Site comprises a group of small fields located on either side of a private access lane. There is a larger, triangular field to the north west of the lane and two smaller fields to the south east, linked by a mature hedgerow. These are described below:
- The larger field to the north west of the lane (Target Note 1) comprises poor semi-improved grassland. Species recorded here include Yorkshire-fog, cock's-foot, perennial rye-grass and red fescue with widespread agricultural herbs such as creeping buttercup, common sorrel, ribwort plantain, dandelion, meadow buttercup, spear thistle, creeping thistle, white clover, common mouse-ear and hogweed.
 - The western of the two southern fields (Target Note 2) is also poor semi-improved grassland, grading into improved grassland in places. The more improved areas are dominated by perennial rye-grass with herbs mostly limited to white clover, creeping buttercup and docks. Small parts of the field, well away from the boundary hedges, are slightly more diverse; here the grasses include Yorkshire-fog, Timothy, common bent and crested dog's-tail and there are small amounts of herbs including common knapweed, yarrow and red clover.
 - The south eastern field (Target Note 3) is also semi-improved grassland and is similar to the previous target note but it is slightly more diverse in places with locally frequent common knapweed. The most abundant grasses are cock's-foot, Yorkshire-fog, Timothy and patches of common bent. There is a damp area supporting compact rush, self-heal and creeping buttercup.

Habitats and flora: hedgerows and trees

- 3.4.5 All three fields are surrounded by hedgerows and lines of trees and shrubs, as described in the Target Notes and summarised below.
- 3.4.6 The larger field to the north west of the lane (Target Note 1) has hedges on all three of its sides:
- The southern hedge, adjacent to the lane, is mainly hawthorn with hazel, holly, blackthorn, dog rose and brambles. It had mostly been cut to 1.5-2m high but was taller at its eastern end, near the off site stream. There are several semi-mature ivy-covered ash trees along the hedge; these are showing significant signs of ash dieback.
 - The 2m tall hedge along the western boundary, adjacent to the road, is situated on a bank above a 0.5m wide ditch (recently cleaned out). The hedge is dominated by hawthorn with hazel, holly, ivy and dog rose with a small ivy-covered dying ash.

- The eastern boundary is a scrubby line consisting of tall blackthorn, grey and goat willow, hawthorn, ash, holly, guelder-rose and hazel. The average height is 5-6m and the shrub line is set back behind a stock fence.

3.4.7 The western of the two southern fields (Target Note 2) is also surrounded by hedges and tree/shrub lines:

- The southern boundary hedge, adjacent to Willow Bank Road, is set back behind a stock fence. It is 2m high and dominated by hawthorn, with ash, holly and hazel.
- The northern hedge, along the access lane, is taller and dominated by hawthorn and hazel.
- The eastern boundary, between the two small fields, comprises a 6m tall scrubby line of blackthorn, hazel, hawthorn, wild cherry and grey willow. There is a large mature ash tree and an English oak. There are existing gaps at each end of the hedge. The shrub/tree line was protected by temporary electric fencing at the time of survey.

3.4.8 The south eastern field (Target Note 3) is surrounded by tall hedgerows and tree lines, and those around the external boundaries are separated from the field by stock fencing. Species present include ash, grey and goat willow, hawthorn, holly, blackthorn, sycamore and elder. The western boundary of this field is the line of internal shrubs and trees described above.

Non-native invasive species

3.4.9 No potentially invasive non-native species (INNS) were recorded during the survey.

Fauna

3.4.10 Some of the mature trees surrounding the fields contain features that could potentially support roosting bats, although no obvious features suitable for bat roosting were observed. We understand that none of the trees will be affected by the proposals and a detailed survey for potential bat roosts is not therefore required.

3.4.11 The hedges and mature trees surrounding the fields may support nesting birds. None were identified during the survey visits, which were conducted outside the bird nesting season. We understand that all hedges and trees will be retained, and no further surveys for birds are therefore required.

4 DISCUSSION AND RECOMMENDATIONS

4.1 Introduction

- 4.1.1 The survey and desk study data have been used to identify any significant ecological constraints which are likely to arise in connection with the proposed development.

4.2 Designated sites

- 4.3 The Site has been designated as a local Wildlife Site as described in paragraph 3.1.2. The current status of the grassland is described in Section 3.4. In broad terms, the Site still comprises semi-improved grassland with similar species recorded to those noted in the 2012 Wildlife Site description. However, overall there appears to have been some loss of diversity and the fields are currently best described as poor semi-improved pasture of limited species diversity. We understand that the fields have not been cut for hay in recent years, and they are currently grazed by ponies.
- 4.4 We understand that the applicant wishes to enhance the biodiversity value of the fields through the use of restricted grazing (track system), and this is discussed further in Section 4.7.

4.5 Habitats, flora and fauna

- 4.5.1 The Site comprises three semi-improved pasture fields located on either side of a private access lane. The fields are surrounded by mostly good quality hedgerows and tree/shrub belts. Most of the hedges are separated from the grazing land by stock fencing and/or temporary electric fences.
- 4.5.2 The proposed development will not result in the loss of any priority habitats or notable flora. The hedgerows and trees will not be affected by the proposals, although it may be necessary to remove or prune the diseased ash trees eventually on health and safety grounds.
- 4.5.3 The proposed development will not affect any protected or priority species.
- 4.5.4 No trees containing potential bat roost features will be affected by the proposed development.

4.6 The development proposals

- 4.6.1 It is proposed to site the 10.8m x 10.4m timber American Barn in the western corner of the south western field. This area was used for the storage of haylage bales and for grazing by ponies at the time of survey, and no habitats or species of significant importance for biodiversity were present. The proposed lighting is low key (a single external solar door light and interior solar lights); these would not be expected to have any adverse impacts on bats or other wildlife species.

- 4.6.2 The proposed parking area is immediately adjacent to the existing entrance gate, and it will affect the more agriculturally improved (and therefore less biodiverse) part of the field. It is proposed to use permeable grass mats and the car park will only be large enough to allow four car parking spaces.
- 4.6.3 The two field shelters will be sited on species-poor semi-improved grassland and will not affect any hedgerows or trees.
- 4.6.4 The proposed grass exercise track around the perimeter of the two smaller fields will be used to manage restricted grazing by horses and ponies. It will not be surfaced, other than use of mud control mats or grass mats (both of which are temporary and removable items) to manage wetter parts of the track and prevent soil erosion. The track will utilise existing gaps in the hedgerows to connect the two fields.

4.7 Recommendations

- 4.7.1 Whilst it is not proposed that any hedgerows or trees should be removed, it may be necessary to prune or remove diseased ash trees. It will also be necessary to carry out hedgerow and tree maintenance works including keeping the two main existing gaps open and sufficiently wide to allow the grass track to pass through. Where trees or hedges do need to be removed or pruned back, this should normally be undertaken outside the bird nesting season (March to August inclusive), to avoid any risk of disturbing breeding birds.
- 4.7.2 If for any reason (e.g. for health and safety purposes) it is necessary to carry out tree removal/pruning during the nesting season, a qualified ecologist should carry out a survey to ascertain whether birds are nesting in the affected habitats. If breeding birds are present, the work will need to be delayed until the young have fledged and the nests are no longer occupied.
- 4.7.3 It is recommended that an assessment for potential bat roosts should be carried out prior to removal of any diseased ash trees containing likely roosting features (e.g. holes, splits, cracks or ivy cover).
- 4.7.4 The applicant has expressed a desire to incorporate biodiversity enhancement measures within the management to be carried out on the land. These include:
- Promotion of improved biodiversity by utilising a track system for the management of the horses and restricting grazing within the interior of the field to three months (September to November).
 - Over sowing of the open field area with a wildflower meadow seed mix suitable for horse grazing, to encourage pollinating insects and other wildlife.

- Hedgerows will be gapped up and thickened by planting a mix of locally native hedge plant species. These will enhance the hedgerow habitats and provide protection for horses from the weather.

4.7.5 Further advice on appropriate seed and planting mixes can be provided as required. The species list in Table 2 provides an indication of the tree and shrub species which will be appropriate to the locality.

5 SUMMARY AND CONCLUSIONS

- 5.1 An application for change of use from agricultural to equestrian, the erection of a six stall American barn and siting of two mobile field shelters is being made on land adjacent to Bryn Tegla, Top Talwrn, Coedpoeth.
- 5.2 The Site has been designated as a local Wildlife Site, supporting semi-improved grassland which appears to have declined in diversity since it was surveyed in 2012. The fields currently comprise poor semi-improved pasture of limited species diversity. The fields are currently grazed by ponies.
- 5.3 No Priority Habitats or other habitats of significant ecological importance will be affected by the proposed development.
- 5.3.1 No protected or priority species and no trees containing potential bat roost features will be affected by the proposed development.
- 5.4 No further surveys for bats, birds or other wildlife groups are considered necessary.
- 5.5 All boundary trees, shrubs and hedgerows are to be retained, and proposals for gapping up and enhancing the hedgerow habitats have been made. Other biodiversity enhancement measures are proposed, including over sowing of the fields with a wildflower meadow seed mix and restricting the timing and intensity of grazing.
- 5.6 In conclusion, the application will not have any significant adverse impacts on valued ecological resources. Recommendations to avoid disturbing nesting birds or bats during essential tree pruning or hedgerow management works are provided.

6 REFERENCES

- CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2017). *Guidelines for Ecological Report Writing, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater Coastal and Marine, version 1.2*. Chartered Institute of Ecology and Environmental Management, Winchester.
- JNCC, 2010. *Handbook for Phase 1 Habitat Survey. A Technique for Environmental Audit*. Reprinted by JNCC, Peterborough.

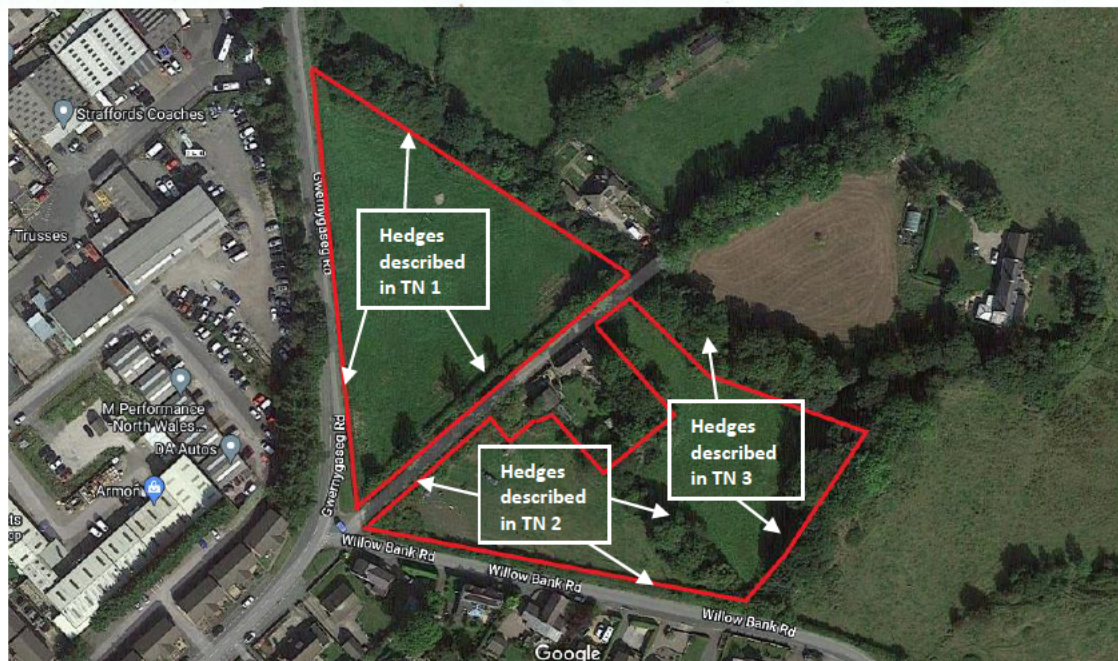
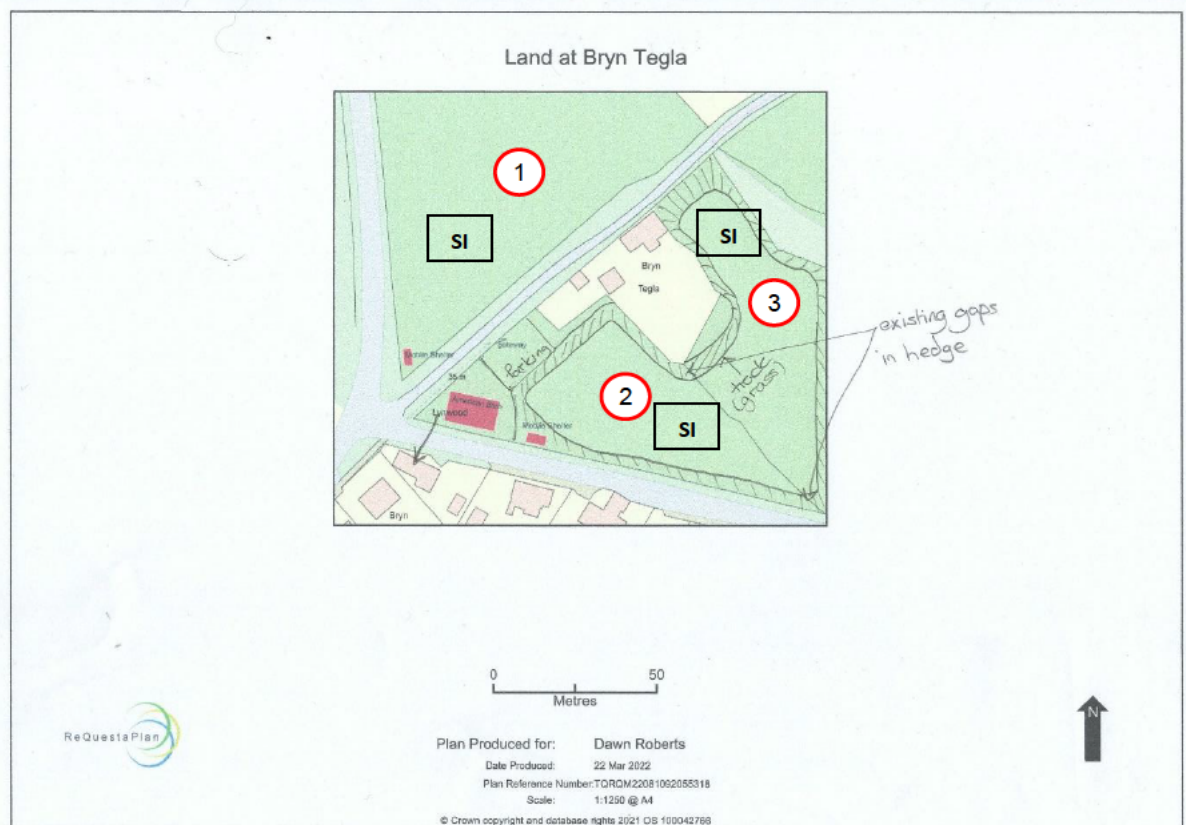
Table 1 Target Notes

No.	Description
1	The larger field to the north west of the lane comprises poor semi-improved grassland. Species recorded include Yorkshire-fog, cock's-foot, perennial rye-grass and red fescue with widespread agricultural herbs such as creeping buttercup, common sorrel, ribwort plantain, dandelion, meadow buttercup, spear thistle, creeping thistle, white clover, common mouse-ear and hogweed. The grassland had recently been cut at the time of the October 2021 survey and had not been recently grazed. The triangular field is surrounded by hedges on all three sides. The southern hedge, adjacent to the lane, is mainly hawthorn with hazel, holly, blackthorn, dog rose and brambles. It had mostly been cut to 1.5-2m high but was taller at its eastern end, near the off site stream. There are several semi-mature ivy-covered ash trees along the hedge; these are showing significant signs of ash dieback. The hedge along the western boundary, adjacent to the road, is situated on a bank above a 0.5m wide ditch. There were no aquatic or emergent plants in the ditch, which had recently been cleaned out. The hedge is 2m tall and dominated by hawthorn with hazel, holly, ivy and dog rose and there is a small ivy-covered dying ash. The eastern field boundary is a scrubby line consisting of tall blackthorn, grey and goat willow, hawthorn, ash, holly, guelder-rose and hazel. The average height is 5-6m and the shrub line is set back behind a stock fence.
2	The western of the two southern fields is poor semi-improved to improved grassland. The more improved areas are dominated by perennial rye-grass with herbs limited to white clover, creeping buttercup and docks. Small parts of the field, well away from the boundary hedges, are slightly more diverse; here the grasses include Yorkshire-fog, Timothy, common bent and crested dog's-tail and there are small amounts of herbs including common knapweed, yarrow and red clover. The southern boundary hedge, adjacent to Willow Bank Road, is set back behind a stock fence. It is 2m high and dominated by hawthorn, with ash, holly and hazel. The northern hedge, along the access lane, is taller and dominated by hawthorn and hazel. The eastern boundary, between the two small fields, comprises a 6m tall scrubby line of blackthorn, hazel, hawthorn, wild cherry and grey willow. There is a large mature ash tree and an English oak. There are existing gaps at each end of the hedge.
3	The south eastern field is largely similar to target note 2 but it is slightly more diverse in places, with locally frequent common knapweed. The most abundant grasses are cock's-foot, Yorkshire-fog, Timothy and patches of common bent. There is a small damp area supporting compact rush, self-heal and creeping buttercup. This field is surrounded by tall hedgerows and tree lines, and those around the external boundaries are separated from the field by stock fencing. Species present include ash, grey and goat willow, hawthorn, holly, blackthorn, sycamore and elder.

Table 2 Dominant and Characteristic Plant Species

Scientific Name	Common Name
<i>Acer pseudoplatanus</i>	Sycamore
<i>Achillea millefolium</i>	Yarrow
<i>Agrostis capillaris</i>	Common Bent
<i>Anthriscus sylvestris</i>	Cow Parsley
<i>Betula pendula</i>	Silver Birch
<i>Centaurea nigra</i>	Common Knapweed
<i>Cerastium fontanum</i>	Common Mouse-ear
<i>Cirsium arvense</i>	Creeping Thistle
<i>Cirsium palustre</i>	Marsh Thistle
<i>Cirsium vulgare</i>	Spear Thistle
<i>Corylus avellana</i>	Hazel
<i>Cotoneaster</i> sp.	Cotoneaster
<i>Crataegus monogyna</i>	Hawthorn
<i>Cynosurus cristatus</i>	Crested Dog's-tail
<i>Dactylis glomerata</i>	Cock's-foot
<i>Dryopteris dilatata</i>	Broad Buckler-fern
<i>Dryopteris filix-mas</i>	Male-fern
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Festuca rubra</i>	Red Fescue
<i>Fraxinus excelsior</i>	Ash
<i>Geranium robertianum</i>	Herb-Robert
<i>Hedera helix</i>	Ivy
<i>Heracleum sphondylium</i>	Hogweed
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Ilex aquifolium</i>	Holly
<i>Juncus conglomeratus</i>	Compact Rush
<i>Juncus inflexus</i>	Hard Rush
<i>Lathyrus pratensis</i>	Meadow Vetchling
<i>Lolium perenne</i>	Perennial Rye-grass
<i>Mercurialis perennis</i>	Dog's Mercury
<i>Phleum pratense</i>	Timothy
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Plantago major</i>	Greater Plantain
<i>Prunus avium</i>	Wild Cherry
<i>Prunella vulgaris</i>	Selfheal
<i>Prunus spinosa</i>	Blackthorn
<i>Quercus robur</i>	English Oak
<i>Ranunculus acris</i>	Meadow Buttercup
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Ribes uva-crispa</i>	Gooseberry
<i>Rosa canina</i> agg.	Dog Rose
<i>Rubus fruticosus</i> agg.	Bramble
<i>Rumex acetosa</i>	Common Sorrel

Scientific Name	Common Name
<i>Rumex obtusifolius</i>	Broad-leaved Dock
<i>Salix caprea</i>	Goat Willow
<i>Salix cinerea</i>	Grey Willow
<i>Salix fragilis</i>	Crack Willow
<i>Sambucus nigra</i>	Elder
<i>Scorzoneroide autumnalis</i>	Autumn Hawkbit
<i>Senecio jacobaea</i>	Common Ragwort
<i>Tamus communis</i>	Black Bryony
<i>Taraxacum agg.</i>	Dandelion
<i>Trifolium pratense</i>	Red Clover
<i>Trifolium repens</i>	White Clover
<i>Urtica dioica</i>	Common Nettle
<i>Viburnum opulus</i>	Guelder-rose



Project Title: Wisdom of Equus
Report Title: Preliminary Ecological Appraisal
Figure No.: Figure 2
Figure Title: Habitat Plan and Annotated Aerial Photo

Key:



Approximate location of Site



Semi-improved grassland



Target note

Figure 3 Photographs of Site – October 2021

1. Larger field to north west of lane (TN 1), showing boundary hedges.



2. Scrubby eastern boundary hedge to larger field (TN 1)



3. Hedge adjacent to Willow Bank Road (TN 2).



4. Scrubby hedge and trees between the two smaller fields (TN 2).



5. Gateway to western field off access lane (TN 2).



6. Looking through existing gap in the hedge/tree line between the two smaller fields (TN2/3).

