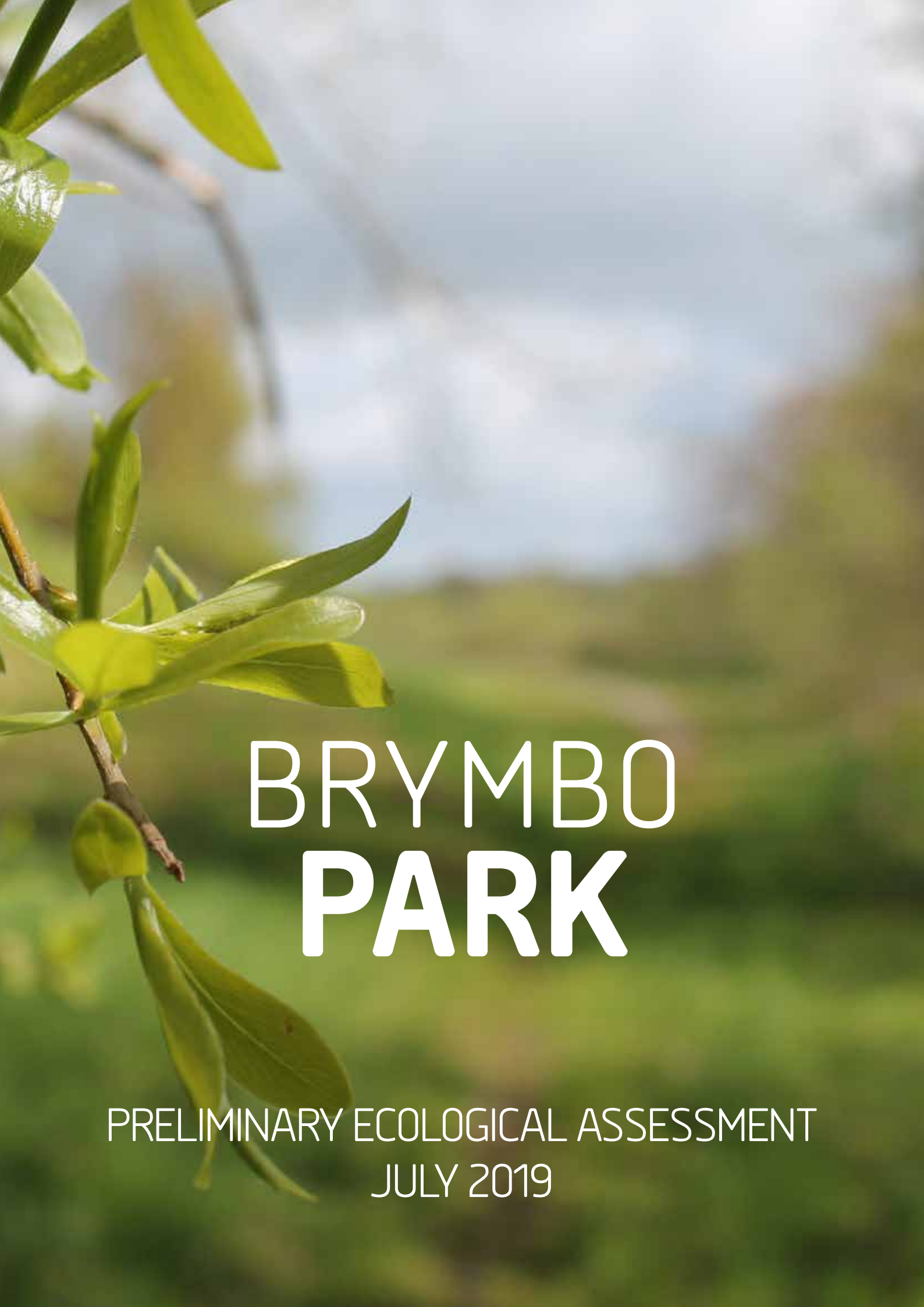




BRYMBO **PARK**

PRELIMINARY ECOLOGICAL ASSESSMENT
JULY 2019

DATE ISSUED: JUNE 2019

JOB NUMBER: ST16882

REPORT NUMBER: 003v3

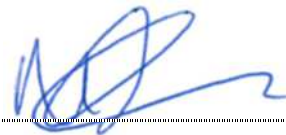
LAND AT THE FORMER BRYMBO STEELWORKS, BRYMBO, WREXHAM

PRELIMINARY ECOLOGICAL APPRAISAL

JUNE 2019

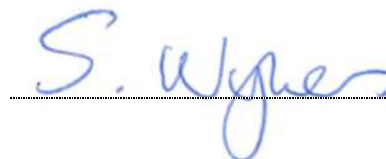
PREPARED BY:

Michael Procter Ecologist



REVIEWED AND APPROVED BY:

Suzanne Wykes Technical Director (Ecology)



This report has been prepared by Wardell Armstrong LLP with all reasonable skill, care and diligence, within the terms of the Contract with the Client. The report is confidential to the Client and Wardell Armstrong LLP accepts no responsibility of whatever nature to third parties to whom this report may be made known.

No part of this document may be reproduced without the prior written approval of Wardell Armstrong LLP.



Wardell Armstrong is the trading name of Wardell Armstrong LLP, Registered in England No. OC307138.

Registered office: Sir Henry Doulton House, Forge Lane, Etruria, Stoke-on-Trent, ST1 5BD, United Kingdom

UK Offices: Stoke-on-Trent, Birmingham, Cardiff, Carlisle, Edinburgh, Glasgow, Greater Manchester, Central Manchester, London, Newcastle upon Tyne, Sheffield, and Truro. International Offices: Almaty and Moscow.

ENERGY AND CLIMATE CHANGE
ENVIRONMENT AND SUSTAINABILITY
INFRASTRUCTURE AND UTILITIES
LAND AND PROPERTY
MINING AND MINERAL PROCESSING
MINERAL ESTATES
WASTE RESOURCE MANAGEMENT

CONTENTS

EXECUTIVE SUMMARY.....	1
1 INTRODUCTION	3
1.1 Terms of Reference	3
1.2 Site Context.....	4
2 METHODOLOGY	5
2.1 Desk Study.....	5
2.2 Extended Phase 1 Habitat Survey	5
2.3 Nomenclature	6
2.4 Caveat.....	6
2.5 Quality Assurance & Environmental Management	6
3 RESULTS AND EVALUATION.....	7
3.1 Statutory and Non-Statutory Designated Sites	7
3.2 Habitats	7
3.3 Species.....	17
4 DISCUSSION AND RECOMMENDATIONS	19
4.2 s.7 Habitats	19
4.3 Protected Species	19
4.4 Invasive Species	21
5 ECOLOGICAL ENHANCEMENTS	22
6 REFERENCES.....	23

DRAWINGS TITLE

SCALE

ST16882-007 Extended Phase 1 Habitat Survey

1:5,000@A3

EXECUTIVE SUMMARY

Wardell Armstrong LLP was commissioned by Brymbo Developments Ltd to undertake a Preliminary Ecological Appraisal at land at the former Brymbo Steelworks, Brymbo, Wrexham; central Ordnance Survey grid reference SJ296534.

The area of detailed ecological study referred to as 'the Site' forms part of the wider land holding associated with the former Brymbo Steelworks, some of which has already been significantly redeveloped. The Site covers an area of approximately 32.59 hectares of former industrial land which has been remediated and regraded, formed of two distinct areas separated by a steeply sloping bank.

There is one statutory designated site and 14 non-statutory designated sites within 2km of the Site, the closest being Coedwig Ffosil Brymbo Fossil Forest SSSI, designated for geological value rather than nature conservation. Development proposals are located entirely outside of the SSSI and will not impact upon the geological features for which the SSSI is designated. The other non-statutory designated sites are considered too distant and/or lacking ecological connectivity for proposals on the Site to impact upon them.

Priority and notable habitats of native hedgerows and plantation woodland were recorded within Ty Cerrig and should be retained, as far as possible, within development proposals, particularly the species-rich lengths of hedgerows. Where small lengths need to be removed for access, compensatory lengths should be provided elsewhere within the Site, composed of native species that occur naturally in the local area.

Protected/ notable species which could potentially be affected by development proposals are bats, badger, great crested newt, reptiles and breeding birds and additional surveys have been recommended for the following:

- Breeding Bird Surveys;
- Bat activity surveys; and
- Badger Survey.

Mitigation measures are outlined in the final section of the report in order to reduce the severity and magnitude of proposed works to an acceptable level for identified habitats and species. Measures include undertaking any vegetation clearance/excavation works under Reasonable Avoidance Measures, to reduce risk of encountering or impacting reptiles and great crested newt and timing vegetation clearance to avoid impacts upon nesting birds (or a pre-commencement check for nest by an ecologist). In addition, a small amount of Japanese

knotweed, noted in the northern part of the Site, will require remediation prior to the commencement of works.

The proposed development offers opportunities to enhance biodiversity, particularly on the areas of open space to be provided on Ty Cerrig and include planting of new hedgerows and woodlands and provision of swamp and wet grasslands habitats associated with any drainage features.

In conclusion, it is considered that there are no significant ecological constraints to the development. With appropriate mitigation measures and additional survey/assessment the ecological receptors identified in this report would not be adversely affected by the development.

1 INTRODUCTION

1.1 Terms of Reference

- 1.1.1 Wardell Armstrong LLP was commissioned by Brymbo Developments Ltd to undertake a Preliminary Ecological Appraisal at land at the former Brymbo Steelworks, Brymbo, Wrexham; central Ordnance Survey grid reference SJ296534.
- 1.1.2 This report has been produced with reference to current guidelines for Phase 1 Habitat Survey (Joint Nature Conservation Committee, 2010), Guidelines for Preliminary Ecological Appraisal (Chartered Institute of Ecology and Environmental Management, 2017) and British Standards for Biodiversity – Code of Practice for Planning and Development (British Standards Institute, 2013).
- 1.1.3 The purpose of the PEA is to identify the likely ecological constraints associated with a project; any mitigation measures or additional surveys likely to be required and the opportunities offered by a project to deliver ecological enhancement.
- 1.1.4 The following ecological features have been considered:
- Statutory and non-statutory designated conservation areas;
 - Areas of Ancient Woodland;
 - Legally Protected Species;
 - Priority Habitats and Species¹; and
 - Invasive species.
- 1.1.5 This report also seeks to identify any requirement for further specialist survey where the initial assessment cannot be relied upon to adequately determine presence or reliably infer absence of protected species/taxa.
- 1.1.6 Provisional mitigation and enhancement opportunities are also discussed.

¹ Priority habitats and species are as follows:

- In Wales, those under Section 7 of the Environment Act (Wales) 2016;
- Those listed as being a priority for conservation within the relevant Local Biodiversity Action Plan (BAP)
- Those Red Listed using International Union for the Conservation of Nature (IUCN) criteria
- Those in the Birds of Conservation Concern (BoCC) listed as Red or Amber
- Those listed at Nationally Rare or Nationally Scarce species

1.2 Site Context

- 1.2.1 The Site forms part of the wider land holding associated with the former Brymbo Steelworks, some of which has already been significantly redeveloped. The Site covers an area of approximately 32.59 hectares of former industrial land which has been remediated and regraded, formed of two distinct areas separated by a steeply sloping bank.
- 1.2.2 The uppermost area is known as Ty Cerrig, forming the western part of the Site. Ty Cerrig has been returned to open fields separated by hedgerows. The bank which separates the areas has been planted with woodland and has an extensive network of informal footpaths running across. This part of the Site is accessed from Brymbo Road.
- 1.2.3 The eastern part of the Site is separated from the west by Phoenix Drive. This area has been regraded into a plateau which sits lower than the western parcel and has significantly less vegetative cover.

2 METHODOLOGY

2.1 Desk Study

2.1.1 The desktop study was informed by review of existing available information provided by Cofnod (North Wales Environmental Information Service) and from available internet-based resources for a 2km search radius and from the Site boundary. OS and satellite mapping was also used to gain contextual habitat information.

2.1.2 Specific information was sought for:

- Statutory designated sites;
- Locally designated sites;
- Ancient woodland²;
- Protected and priority species;
- s.7 habitats and species; and
- Local Biodiversity Action Plan (LBAP) priority habitats and species.

2.2 Extended Phase 1 Habitat Survey

2.2.1 WA carried out an Extended Phase 1 Habitat Survey of the Site on 7 August 2018. The survey was carried out by an experienced Ecologist from WA.

2.2.2 The survey broadly followed the 'Extended Phase 1' methodology (Institute of Environmental Assessment (IEA), 1995 and JNCC 2010). Each of the main habitats were classified according to the relevant criteria including vegetation composition expressed according to the DAFOR³ system.

2.2.3 In addition to the mapping and description of habitats, incidental observations of protected and/or notable species and the potential for such species to occur on site

² As defined by Natural England on their Inventory of Ancient Woodlands

³ **Dominant (D)** is used to refer to a single plant species that covers almost the entirety of a habitat so it is rarely used except for homogenous stands of vegetation.

Abundant (A) is used when a plant species is very common on a site and encountered throughout the habitat and with a high % cover i.e. >30%.

Frequent (F) is used when many plants are encountered throughout the habitat and approximately at 15-30% cover.

Occasional (O) is used where several plants are found, scattered throughout the habitat and approximately at <15% cover.

Rare (R) is used when one or two individual plants are present.

(and in the surrounding landscape where relevant) were also recorded onto secure digital media for mapping and data collection.

- 2.2.4 Broad habitats are mapped on Drawing ST16882-007 *Extended Phase 1 Habitat Survey* with appropriate references identifying features of particular note.

2.3 Nomenclature

- 2.3.1 Vascular plant names follow '*New Flora of the British Isles*' (Stace, 2010) with vernacular names as provided in the Botanical Society of the British Isles website (BSBI, 2013).
- 2.3.2 All fauna names follow those on the National Biodiversity Network (NBN) Gateway (NBN, 2013).
- 2.3.3 The common and scientific name of species/taxa is provided (if available) when first mentioned in the text, with only the vernacular name referred to thereafter.

2.4 Caveat

- 2.4.1 Ecological surveys are limited by factors that affect the presence of plants and animals such as time of year, weather, migration patterns and behaviour. The survey was undertaken in early August and therefore represents a valid sample of ecological evidence present on that date/season. The report is not designed, nor is it required to, present a complete inventory of flora and fauna.
- 2.4.2 The absence of desk study records is not relied upon to determine absence of a particular species. Often, the absence of records is a result of under-recording within the given search area and as such the experience of the ecologist concerned together with a range of additional factors, such as the presence or absence of potential supporting habitat, is used to infer likely presence or absence.
- 2.4.3 An indicative assessment of potential adverse effects is provided, although this is not a substitute for a full Ecological Impact Assessment.

2.5 Quality Assurance & Environmental Management

- 2.5.1 The surveys and assessments have been overseen by and the report checked and verified by a full member of CIEEM, whom is bound by its code of professional conduct.
- 2.5.2 All surveys and assessments have been undertaken with reference to the recommendations given in British Standard BS 42020, and as stated within specialist guidance, as appropriate, and are referenced separately.

3 RESULTS AND EVALUATION

3.1 Statutory and Non-Statutory Designated Sites

- 3.1.1 There is a single SSSI that falls within 2km of the Site, Coedwig Ffosil Brymbo Fossil Forest. The SSSI is designated for geological value, rather than nature conservation, and is located adjacent to the site boundary. It is understood that the development proposals are entirely located outside of the SSSI and will not impact upon the geological features for which the SSSI is designated.
- 3.1.2 There are fourteen Local Wildlife Sites (LWS) within 2km of the Site.
- 3.1.3 The closest LWS is located approximately 150 m east of the Site; Brymbo Pony Fields Wildlife Site. It is situated on a steep west facing slope between houses and gardens in Brymbo. The small fields, bounded by hedges, consist of semi-improved grassland grazed by ponies. The southern fields are short with abundant black knapweed, crested dog's-tail and bird's-foot trefoil with frequent bulbous buttercup and yellow oat-grass. Quaking grass and mouse-eared hawkweed also occur. The northern fields are tall and coarser and in one field, there is invading ash, sycamore and hawthorn scrub. There are no shared ecological receptors on the LWS and the Site that are considered likely to be impacted by the proposals.
- 3.1.4 The other thirteen LWS are considered too distant and/or lacking ecological connectivity for proposals on the Site to impact upon them.

3.2 Habitats

- 3.2.1 All habitats within the Site are described in Table 1. The conservation value and sensitivity of habitats in relation to the proposed works is provided.
- 3.2.2 Habitats which could be subject to adverse effects and which are UK or local priority habitats are indicated with bold text and are discussed in Section 5 *Discussions and Recommendations*. Habitats for which potential adverse effects are not anticipated or which are not UK or local priority habitats are excluded from further assessment.
- 3.2.3 The location and extent of habitats is shown on Drawing ST16882-007 *Extended Phase 1 Habitat Survey*.
- 3.2.4 Japanese knotweed *Fallopia japonica* was recorded within and adjacent to the north of the Site.

Phase 1 Habitats		S.7	Implications
<u>Arable</u> The fields of Ty Cerrig were composed of rye-grass leys, dominated by perennial rye-grass <i>Lolium perenne</i>, with occasional dandelion <i>Taraxacum officinale</i>, clover <i>Trifolium repens</i>, creeping buttercup <i>Ranunculus repens</i>, broad-leaved dock <i>Rumex obtusifolius</i>, cocksfoot <i>Dactylis glomerata</i> and Timothy <i>Phleum pratense</i>.		X	None – this habitat is common and widespread and of low ecological value. It does not pose a constraint to development.
<u>Ephemeral/Short perennial</u> This habitat has colonised the overburden present on the eastern plateau, which was utilised during the reclamation of the wider site. Vegetation communities comprised of abundant coltsfoot <i>Tussilago farfara</i> with fine grasses and other less abundant herbs including occasional birds-foot trefoil <i>Lotus corniculatus</i>, rosebay willowherb <i>Chamerion angustifolium</i>, curled dock <i>Rumex crispus</i>, ragwort <i>Jacobaea vulgaris</i>, black medick <i>Medicago lupulina</i>, oxeye daisy <i>Leucanthemum vulgare</i>, evening primrose <i>Oenothera biennis</i>, yarrow <i>Achillea millefolium</i>, white deadnettle <i>Lamium album</i>, gorse <i>Ulex europaeus</i> and broom <i>Cytisus scoparius</i>.		X	None – whilst this habitat is similar to the 'Open Mosaic Habitats on Previously Developed Land' priority habitat, it lacks the floral diversity and characteristic species assemblages to qualify as a priority habitat. It does not pose a constraint to development.

Phase 1 Habitats		S.7	Implications
Some areas of the eastern plateau comprised of frequent grasses including cocksfoot, perennial ryegrass, Yorkshire fog <i>Holcus lanatus</i>, annual meadow grass and Cock's-foot. Herbs within the grassier areas included ragwort, dandelion, purple clover, broom, coltsfoot, bird's-foot trefoil and black knapweed <i>Centaurea nigra</i>, with scattered self-set sapling goat willow <i>Salix caprea</i>. Several depressions were noted within the grassland located on the eastern plateau containing species such as bulrush <i>Typha latifolia</i> and soft rush <i>Juncus effusus</i>, indicating that they are likely seasonally damp.			
<u>Scattered scrub</u> There are several areas of scattered scrub located throughout the western and central areas of the site, composed of scattered young goat willow and gorse over poor semi-improved grassland.		X	None – this habitat is common and widespread and of low ecological value. It does not pose a constraint to development.

Phase 1 Habitats		S.7	Implications
<u>Mixed Plantation Woodland</u> Several blocks of mixed plantation woodland are present across the site comprised of ash <i>Fraxinus excelsior</i>, pedunculate oak <i>Quercus robur</i>, sycamore <i>Acer pseudoplatanus</i>, Pine <i>Pinus sp.</i>, goat willow, grey willow <i>Salix cinerea</i>, blackthorn <i>Prunus spinosa</i>, horse chestnut <i>Aesculus hippocastanum</i>, holly <i>Ilex europaeus</i>, silver birch <i>Betula pendula</i>, aspen <i>Populus tremula</i>, alder <i>Alnus glutinosa</i> and field maple <i>Acer campestre</i>.		X	Yes – although plantation woodland is not a notable or priority habitat, woodland cover contributes to the overall ecological value of the site.
<u>Broadleaved plantation woodland</u> Several blocks of broadleaved plantation woodland are present across the site comprised of ash, cherry <i>Prunus avium</i>, grey willow, goat willow, rowan <i>Sorbus aucuparia</i>, sycamore, field maple, hazel <i>Corylus avellana</i>, silver birch, hawthorn <i>Crataegus monogyna</i>, gorse and holly.		X	Yes – although plantation woodland is not a notable or priority habitat, woodland cover contributes to the overall ecological value of the site.

Phase 1 Habitats	S.7	Implications
<u>Vegetated field boundaries including tall ruderal, dense and scattered scrub and bracken.</u> The field boundaries to the arable leys of Ty Cerrig, in the western part of the site are bordered by a mixture of tall ruderal, bracken and scattered and dense scrub. The size and distribution of these habitats makes them unsuitable for accurate mapping. Species recorded included hogweed <i>Heracleum sphondylium</i>, broad-leaved dock <i>Rumex obtusifolius</i>, creeping cinquefoil <i>Potentilla reptans</i>, ribwort plantain <i>Plantago lanceolata</i>, rosebay willowherb, ragwort and nettle <i>Urtica dioica</i>. Composite scrub species included bramble <i>Rubus fruticosus</i>, buddleia <i>Buddleia davidii</i>, ash and goat willow. Areas of bracken <i>Pteridium aquilinum</i> habitat were present, dominated entirely by bracken.		None – these habitats are common and widespread, and of low ecological value and do not pose a constraint to development. X

Phase 1 Habitats		S.7	Implications
<u>Bare ground</u> An area of bare ground was present in front of the heritage buildings, along Phoenix Drive.		X	None – this habitat is common and widespread, and of low ecological value and does not pose a constraint to development.

Phase 1 Habitats	S.7	Implications
<u>Native hedgerows (species-rich and species-poor)</u> Three species-rich hedgerows (SRH) recorded within the site comprised of the following species SRH1: Hawthorn, holly, hazel, rose <i>Rosa</i> sp., elm <i>Ulmus</i> spp., pedunculate oak and elder <i>Sambuccus nigra</i> SRH 2: Hawthorn, sycamore, ash, horse chestnut, pedunculate oak and white poplar <i>Populus alba</i>. SRH3: Hawthorn, ash, rose, pedunculate oak, sycamore, horse chestnut, goat willow and blackthorn.		✓ Yes – all types of native hedgerow are priority habitats.

Phase 1 Habitats			S.7	Implications
Species-poor hedgerow Four species-poor hedgerows (SPH) recorded within the site comprised of the following species SPH 1: Hawthorn, sycamore and ash SPH 2: Hawthorn and ash SPH 3: Hawthorn, ash, sycamore and horse chestnut SPH 4: Hawthorn, oak, ash and sycamore	 	 	✓	Yes – all types of native hedgerows are protected BAP habitats.

Phase 1 Habitats	S.7	Implications
<u>Buildings</u> There are two buildings that lie within the site boundary, both of which are electrical substation buildings that lie in the southern extent of the western arable expanse. Neither of these buildings are considered suitable to support roosting bats as they are well sealed.		None – Devoid of vegetation and ecological value. X

Phase 1 Habitats	S.7	Implications
<u>Dry ditch</u> Three ditches were recorded within the site, one appeared to hold water for longer periods of time than the other ditches as it contained green algae, suggesting it regularly holds eutrophic water for extended periods. It had been colonised by ephemeral/short perennial vegetation through the summer. The banks support young goat willow and silver birch trees. The other two ditches were dry during the survey and had no evidence of regularly holding water being colonised by grass species.	 	None – this habitat is common and widespread, and of low ecological value and does not pose a constraint to development. X

3.3 Species

3.3.1 Protected species and species of importance nationally and locally are evaluated in order to both identify further survey requirements and to identify potential constraints to inform development proposals.

3.3.2 Evaluations are based on, but are not limited to, the following criteria:

- Desk study records;
- Evidence found during the survey;
- Presence, extent, quality and viability of supporting on-site habitat;
- Ecological connectivity to viable off-site habitats; and
- Perceived impacts of habitat loss/impact to individuals in relation to proposals.

Bats

3.3.3 During the site visit, no trees were recorded with potential to support roosting bats and no trees of a mature stature were recorded within the site. It is not considered that a full tree bat roost potential assessment of the site is required, as the majority of the trees within the site are recently planted (approximately 10 years) and are unlikely in this time to have developed any suitable roosting features for bats.

3.3.4 The habitats on site are suitable to support foraging and commuting bats. The ecological records search returned records of common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Daubenton's *Myotis daubentonii*, lesser horseshoe *Rhinolophus hipposideros*, noctule *Nyctalus noctula*, unidentified pipistrelle *Pipistrellus spp.*, unidentified bat *Chiroptera spp.*, and whiskered bat *Myotis mystacinus*. These records include both flight records and roosting records. Notably, there are two confirmed lesser horseshoe roosts located 1650m south and 1775m south of the site.

Badger

3.3.5 Whilst limited evidence of badger was recorded within the site during the site visit, a comprehensive badger survey within 30m of the Site was not undertaken and therefore setts cannot be assumed to be absent. The ecological record centre returned records of badger and setts within 2km of the site. Precise location data was not provided of the sett records so an accurate location cannot be provided.

Birds

- 3.3.6 The poor semi-improved grassland with areas of scattered young willow scrub and wet depressions are considered suitable habitat for a variety of protected bird species (such as the Schedule 1 little ringed plover *Charadrius dubius*). There are records of declining birds of conservation concern with potential to utilise the site including cuckoo *Cuculus canorus*, garden warbler *Sylvia borin*, grey partridge *Perdix perdix*, linnet *Linaria cannabina*, redstart *Phoenicurus phoenicurus*, skylark *Alauda arvensis*, spotted flycatcher *Muscicapa striata*, willow warbler *Phylloscopus trochilus* and yellowhammer *Emberiza citrinella* recorded within 2km of the site.

Hazel Dormouse Muscardinus avellanarius

- 3.3.7 The site is not considered suitable to support hazel dormouse. Although there are habitats which have the potential to support dormice (including plantation woodland and species-rich hedgerows), the site does not have significant arboreal connectivity to surrounding hedgerow and woodland in the wider area. In addition, historically, the Site has undergone significant ground clearance, thereby making colonisation by dormouse unlikely; the site is considered too ecologically isolated for dormouse to be present. Additionally, (whilst the absence of ecological records does not infer absence of the species), there are no records of dormouse within 2km of the site.

Great Crested Newt Triturus cristatus

- 3.3.8 Metal great crested newt (GCN) exclusion fencing was noted to the north of Ty Cerrig, and a previous licenced translocation has been undertaken for land in the eastern part of the Site.
- 3.3.9 There are records of great crested newt adjacent to the site, however these are associated with the adjacent GCN mitigation scheme located to the north of the site.

Reptiles

- 3.3.10 The habitats present on Site are considered suitable to support low numbers of reptiles (such as grass snake *Natrix natrix* and slowworm *Anguis fragilis*). *Much of the eastern extent of the Site has historically undergone much disturbance, and the habitats within Ty Cerrig lack the structural diversity to support notable populations of reptiles.* The ecological record search returned records of adder *Vipera berus*, common lizard *Zootoca vivipara* and grass snake in the locality, but not on Site.

4 DISCUSSION AND RECOMMENDATIONS

4.1.1 The following ecological receptors have been evaluated as requiring further investigation and consideration within development proposals:

- Priority habitats:
 - Native hedgerows
- Protected and Notable Species:
 - Bats;
 - Badger;
 - Birds;
 - Great Crested Newt; and
 - Reptiles.
- Nesting birds (general); and
- Japanese knotweed.

4.1.2 The nature of potential effects, requirements for further surveys, and proposed mitigation/compensation are discussed below for each of the identified potential sensitive receptors.

4.2 s.7 Habitats

Hedgerows and plantation woodland

4.2.1 The hedgerows and strips of plantation woodland within Ty Cerrig should be retained, as far as possible, within development proposals, particularly the species-rich lengths of hedgerows. Where small lengths need to be removed for access, compensatory lengths should be provided elsewhere within the Site, composed of native species that occur naturally in the local area.

4.3 Protected Species

Bats

4.3.1 Bat activity surveys should be undertaken in order to assess the status of bats within the site. Additionally, these surveys will identify any areas of particular importance to bats, the implications of which can be incorporated into the Masterplan to mitigate against any adverse impacts to bats. Bat Activity Surveys include both walked transects and deployment of static detectors and are undertaken between April and

October. The precise survey effort applicable to this Site is to be confirmed with the Local Planning Authority Ecologist.

Badger

A comprehensive badger survey should be undertaken during peak activity times (February – March) to assess the status of any setts within/near to the site (if present).

Birds

- 4.3.2 It is recommended that breeding bird surveys are undertaken within the site to investigate the species assemblage and presence of protected bird species on the Site. Breeding bird surveys are undertaken between March and June inclusive.

Great Crested Newt

- 4.3.3 GCN were previously recorded within a waterbody associated with the previous steel working infrastructure which was removed, and the land remediated, in the early 2000's. A licenced GCN translocation scheme was implemented with GCN now being confined to a fenced receptor area (complete with ponds) to the south of Blast Road. It is therefore considered that GCN would not be present within the Proposed Development boundary; there are no suitable waterbodies present, and the Site itself provides low quality habitat for GCN compared to the receptor area.
- 4.3.4 'Wonderbank' is now part of the GCN receptor area and the boundary of the Site lies adjacent to the 'Wonderbank', therefore, any vegetation clearance and / or excavation works taking place in this location would be within 65m of the receptor ponds (at their closest). Although, the risk of encountering GCN during site works on Ty Cerrig are considered to be low (due to distances from breeding ponds and suitability of habitat) it is, however, recommended that any works within 100m of the receptor ponds proceed in accordance with a Reasonable Avoidance Measures (RAMs) Method Statement. This proposed approach will ensure that risks to individual GCN and the favourable conservation status of GCN in the area will be very low and further minimised wherever possible.
- 4.3.5 The RAMs to be implemented will cover the following (details to be supplied in the RAMs Method Statement to be submitted at the detailed design stage):
- a) Site induction and tool box talks to be given by a suitably qualified and experienced ecologist to the contractor personnel on the potential presence of GCN, their legal status and the approved Reasonable Avoidance Measures to be followed during works on site.

- b) Supervision by licenced GCN ecologist of works involving the initial strip of vegetation and soil excavation within 100m of the receptor ponds. If GCN are encountered the advice of the ecologist to be followed. A GCN licence from Natural Resources Wales may be required.
- c) Timing of site clearance works within 100m of receptor ponds to avoid the hibernation period for GCN which is between mid-October and mid-February (weather dependant).
- d) Use of off ground storage within 50m of the receptor ponds.
- e) Trenches within 100m of the receptor ponds to normally be excavated and closed in a day, however, if to be left open, a means of egress suitable for amphibians to be installed to allow animals to escape.

Reptiles

- 4.3.6 It is considered that a Precautionary Working Method Statement should be devised and implemented in order to safeguard any reptiles that may be present within the site during construction.

Nesting Birds

- 4.3.7 It is recommended that vegetation clearance and ground clearance works are undertaken outside of the usual bird breeding season (normally taken to be March – August inclusive). If such timescales cannot be accommodated, a check for the presence of active nests, and nesting birds should be undertaken by a suitably qualified ecologist prior to the commencement of works. Any active nests should be identified and protected subject to the relevant legal provisions until the nesting attempt is complete.

4.4 Invasive Species

Japanese knotweed

- 4.4.1 Japanese knotweed was recorded within the northern area of the Site. This will require remediation prior to the commencement of development.

5 ECOLOGICAL ENHANCEMENTS

- 5.1.1 Planning Policy Wales and BSI 42020:2013 encourage opportunities to incorporate biodiversity improvements in and around developments.
- 5.1.2 The following measures are considered appropriate for the scale of the development and the magnitude of perceived impacts.
- 5.1.3 Undeveloped areas of the Site, particularly, the southern part of Ty Cerrig offer opportunities for habitat enhancement. Corners of fields should be planted with native trees and shrubs to promote habitat connectivity, and where possible, new hedgerows should also be planted, to connect newly planted copses, to form a network of tree cover in this area.
- 5.1.4 Any drainage features should be sympathetically designed to incorporate semi-natural habitats including swamp and wet grassland, with transition to dryer species-rich grassland in field interiors also be incorporated in undeveloped areas of open space.

6 REFERENCES

Botanical Society of the British Isles (2013) *Online atlas of the British and Irish Flora*. [online] Available at: http://www.brc.ac.uk/plantatlas/index.php?q=title_page

British Standards Institute (2013) *Biodiversity – Code of Practice for Planning and Development*. BS 42020:2013.

CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*, 2nd Edition. Chartered Institute of Ecological and Environmental Management, Winchester.

Institute of Environmental Assessment (1995) *Guidelines for Baseline Ecological Assessment*. First Edition. E & FN Spon, London.

Joint Nature Conservation Committee (2010) *Handbook for Phase 1 Habitat Survey: A technique for Environmental Audit*. JNCC, Peterborough.

National Biodiversity Network (2017) NBN Atlas. [online] Available at: <https://nbnatlas.org/>

Stace, C. (2010) *New Flora of the British Isles*. Third Edition. Cambridge University Press.

DRAWINGS



Key

Site Boundary

Broadleaved woodland - plantation

Mixed woodland - plantation

Scrub - dense/continuous

Scrub - scattered

SI

Neutral grassland - semi-improved

I

Improved grassland

Bracken - continuous

Other tall herb and fern - ruderal

Cultivated/disturbed land - ephemeral/short perennial

Buildings

Bare ground

Other habitat

Intact hedge - native species-rich

Intact hedge - species-poor

Hedge with trees - native species-rich

Hedge with trees - species-poor

Dry ditch

Target Notes

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D
CLIENT					
Brymbo Developments Ltd					
PROJECT					
Former Brymbo Steelworks					
DRAWING TITLE					
Extended Phase 1 Habitat Survey					
DRG No		ST16882/007		REV	
				A	
DRG SIZE		SCALE		DATE	
A3		1:5,000		March 2019	
DRAWN BY		CHECKED BY		APPROVED BY	
SW		MP		SW	

NEWCASTLE UPON TYNE

BIRMINGHAM

EDINBURGH

MANCHESTER

CARDIFF

GLASSGOW

SHEFFIELD

CARLISLE

LEIGH

STOKE ON TRENT

CROYDON

LONDON

TAUNTON

TEL 0191 232 0943

WEB: WWW.WARDELL-ARMSTRONG.COM

wardell
armstrong

© Copyright Reserved

0

200

Metres

© 2019 Microsoft Corporation © 2019 DigitalGlobe © CNBS (2019) Distribution Airbus DS © 2019 HERE

