



BRYMBO **PARK**

GREAT CRESTED NEWT
FRAMEWORK STRATEGY
MARCH 2020

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BRYMBO DEVELOPMENTS LTD

LAND AT FORMER BRYMBO STEELWORKS, BRYMBO, WREXHAM

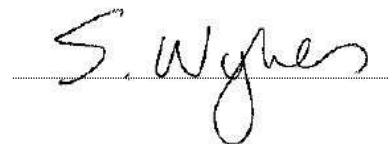
GREAT CRESTED NEWT FRAMEWORK STRATEGY

FEBRUARY 2020

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DRAWINGS	TITLE	SCALE
ST16882-047 A	Brymbo Area Locations and References	1:4,000@A3
ST16882-057 A	Enhancement Proposals for Great Crested Newt	1:2,000@A3
RG-M-14 Rev A	Landscape Masterplan	1:2,500@A1

EXECUTIVE SUMMARY

Wardell Armstrong LLP was commissioned by Brymbo Developments Ltd to compile a Framework Strategy for great crested newt (GCN) (*Triturus cristatus*) as requested by Natural Resources Wales following their consultation response to planning application ref. P/2019/0546 to Wrexham Borough Council.

The aim of this report is to outline a long-term strategy to ensure that the population of GCN present at the former Brymbo Steelworks is maintained and enhanced alongside current development proposals and to identify the mechanisms by which this will be secured.

The report therefore covers the following elements:

- An assessment of the likelihood of GCN being impacted by the development proposals for the site;
- An indication as to what mitigation may be required to avoid impacting GCN, including whether a European Protected Species Licence would be required;
- Identification of a long-term strategy for the site, post construction, to ensure the favourable conservation status (FCS) of GCN is maintained.
- Identification of suitable mechanisms, including funding, to ensure the strategy can be delivered; and
- Details of monitoring requirements to ensure that the strategy is relevant and up to date in the long term.

It is anticipated that this Framework Strategy will provide the basis going forward to allow more detailed decisions and plans to be made and agreed to ensure GCN remain at a favourable conservation status, alongside current and future development proposals for the Former Brymbo Steelworks area.

1 INTRODUCTION

1.1 Terms of Reference

1.1.1 Wardell Armstrong LLP was commissioned by Brymbo Developments Ltd to compile a Framework Strategy for great crested newt (GCN) (*Triturus cristatus*) as requested by Natural Resources Wales (NRW) following their consultation response to planning application ref. P/2019/0546 to Wrexham Borough Council.

1.1.2 Scope of Strategy

1.1.3 As indicated by NRW in their consultation response, and following discussion with Mathew Ellis, Senior Species Advisor at NRW, the strategy was to include the following:

- An assessment of the likelihood of GCN being impacted by the development proposals for the site;
- An indication as to what mitigation may be required to avoid impacting GCN, including whether a European Protected Species Licence would be required;
- Identification of a long-term strategy for the site, post construction, to ensure the favourable conservation status (FCS) of GCN is maintained.
- Identification of suitable mechanisms, including funding, to ensure the strategy can be delivered; and
- Details of monitoring requirements to ensure that the strategy is relevant and up to date in the long term.

1.2 Site Context

1.2.1 The area of land currently subject to the planning application, hereafter referred to as the 'Site', covers an area of the wider land holding associated with the former Brymbo Steelworks, some of which has already been significantly redeveloped.

1.2.2 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.

1.2.3 The uppermost area is known as Ty Cerrig, forming the western part of the Site. Ty Cerrig, a former opencast site, has been restored 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.

- 1.2.4 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.

1.3 Background

Brymbo Heritage Area

- 1.3.1 An area of the former steelworks has significant heritage value and has been retained as the Brymbo Heritage Area (BHA), which includes the Brymbo Fossil Forest, Brymbo Ironworks, the remains of the 19th century colliery and the GCN Receptor Area, including Wonderbank. See Drawing no. ST16882-047 for the location of the BHA.
- 1.3.2 In 2013, the Brymbo Heritage Group (now the Brymbo Heritage Trust (BHT)) secured funding to develop the BHA as a public space and visitor attraction with further funding obtained in 2015 and 2017 to progress the vision for the BHA.
- 1.3.3 Future plans for the area include the installation of the narrow-gauge railway with associated works within the GCN Receptor Area (which will require a licence from NRW), erecting a visitor centre for the Fossil Forest, and construction of a solar farm.
- 1.3.4 In 2018, the BHT commissioned Enfys Ecology to compile an Ecological Management Plan (EMP) for the BHA. This GCN Framework Strategy has been informed by, and is in accordance with the EMP.

Great Crested Newt

- 1.3.5 An historic population of GCN were present in waterbodies associated with the former steelworks, and a licenced translocation scheme was completed in 2002. GCN were relocated to a Receptor Area to the south of Blast Road, outside of the Site boundary but within the BHA, complete with newly constructed ponds and suitable foraging and sheltering habitat. A newt exclusion fence was erected along the eastern and southern edge of the Receptor Area, to prevent GCN from entering areas proposed for future re-development.
- 1.3.6 Records obtained from Cofnod, of the monitoring of the ponds within the Receptor Area by Enfys Ecology indicate that a medium population of GCN make use of the ponds within the Receptor Area for breeding.

2 IMPACT ASSESSMENT

2.1 Development Proposals

- 2.1.1 The proposed development (planning application ref. P/2019/0546) is seeking outline planning permission for housing, a school and commercial uses, with all matters reserved except for vehicular access from Brymbo Road.
- 2.1.2 The masterplan for the proposed development indicates that the eastern development plateau will retain areas of existing tree planting along the steeply banked sides of the Site and enhance these to provide screening and a sense of enclosure to built-up areas.
- 2.1.3 Development on Ty Cerrig incorporates existing mature hedgerows and tree belts and proposes to also includes greenspace that sits on top of the hill in Ty Cerrig as open parkland that contrasts with the surrounding woodland. Along the southern field of Ty Cerrig further greenspace is also provided, consisting of grassland with some tree planting.

2.2 Potential Impacts

- 2.2.1 Development proposals have the potential to impact terrestrial GCN should they be present in habitat that is disturbed or removed during the construction phases of the development. No GCN breeding habitat (i.e. ponds) will be directly disturbed by the development proposals.
- 2.2.2 Once completed, the development has the potential to impact GCN if people access the Receptor Area without authorisation. For instance, people could introduce fish to the GCN breeding ponds, degrade foraging habitat and disturb/destroy features utilised by hibernating GCN.
- 2.2.3 In addition, any new roads with drainage systems have the potential to trap GCN, should GCN be utilising the areas where these features are installed, leading to the killing of individual GCN.

2.3 Condition of GCN Fencing

- 2.3.1 The redline planning application boundary is located directly adjacent to the GCN Receptor Area, separated from it by the permanent GCN exclusion fence. The position of the GCN exclusion fence is shown on drawing ST167882-047.
- 2.3.2 During a visit to the site on 3 Dec 2019 by an Ecologist from WA (Suzanne Wykes, Technical Director), the condition of the fence and management of associated

vegetation was investigated. It is understood that the Brymbo Heritage Trust maintain the fence.

- 2.3.3 The fence was in good condition for the majority of its length, with no gaps, sagging or any other faults. The crossing point grid was also well maintained providing an effective barrier to GCN at this location.
- 2.3.4 Vegetation was managed along the majority of the length of the fence, save for a section of approx. 90 metres at the far western end, north of Ty Cerrig.



Plate 1. Showing intact and well maintained GCN exclusion fence south of heritage area



Plate 2. Showing intact exclusion fence but with unmanaged vegetation along northern boundary of Ty Cerrig

2.4 Habitat Suitability

- 2.4.1 The Receptor Area provides high quality terrestrial habitat for GCN. The Receptor Area consists of oak/ash woodland, with some open rides and there are also many areas with piles of rubble, bricks, earth, wood and brash providing high quality sheltering habitat for GCN.



Plate 3. Receptor Area showing brash piles

- 2.4.2 The slopes of the Wonderbank have dense scrub which was planted approximately 15 years ago, whilst the top of this area consists of a grassland/scrub mosaic, with areas of brash/logs, all of which provide high quality terrestrial habitat for GCN throughout the year.



Plate 4. Scrub slopes of the Wonderbank



Plate 5. Top of Wonderbank showing grassland and debris, providing sheltering opportunities for GCN

- 2.4.3 Outside of the Receptor Area and within the redline boundary, habitat suitable for terrestrial GCN is present, though it is considered to be of varying quality.
- 2.4.4 The eastern plateau, which has been cleared of vegetation in the recent past now supports a mosaic of sparse ephemeral vegetation and bare ground. It is flat with very

few topographical changes and is considered to be low quality terrestrial habitat for GCN.



Plate 6. Eastern plateau

- 2.4.5 West of the plateau, the Site leads up steep slopes to the top of Ty Cerrig. These slopes support plantation woodland. The woodland has some lower growing shrubs including broom (*Cytisus scoparius*) intermixed with grassland and bare earth. The grassland is unmanaged and is developing a tussock structure, of value to GCN as both foraging and sheltering habitat. This area is considered to provide high quality foraging and sheltering habitat for GCN.



Plate 7. Wooded slopes of Ty Cerrig

- 2.4.6 At the northern end of Ty Cerrig, adjacent to the GCN exclusion fencing a sparse hedge runs along the edge of the adjacent field, the latter which is composed of semi-improved grassland, that is mown for hay/silage. The grassland lacks a tussock structure as it is cut throughout the growing season and generally lacks any cover for GCN. This area is considered to provide moderate quality foraging habitat and low-quality sheltering habitat for GCN.



Plate 8. Open grassland on top of Ty Cerrig

2.5 Likely Impacts Upon GCN

- 2.5.1 The development plateau is considered to lack suitable habitat to support terrestrial GCN, and in addition, the exclusion fencing is a barrier to GCN between the breeding ponds and the plateau. Therefore, it is considered that development proposals for the east of the site, would not lead to impacts upon GCN, either directly (through killing or injury) or through loss of habitat.
- 2.5.2 Although there is suitable terrestrial habitat for GCN on the slopes leading up to Ty Cerrig, this area is located adjacent to the GCN exclusion fence which provides an effective barrier to GCN movement from the Receptor Area into this area. Therefore, it is considered that development proposals for the slopes would not lead to impacts upon GCN, either directly (through killing or injury) or through loss of habitat.
- 2.5.3 Ty Cerrig itself consists of large open fields which are cut for hay/silage throughout the growing season with bounding hedgerows and tree belts, planted when the site was restored after open-cast mining. The GCN exclusion fence to the north of Ty Cerrig has woody vegetation growing against, particularly on its northern side, however vegetation is less on the southern side of the fence, as it is adjacent to a footpath. The fence itself is still intact, complete with the overhanging lip. and based upon the abundance of more suitable habitat for GCN in the Receptor Area and on Wonderbank, it is considered unlikely that GCN would preferentially use Ty Cerrig. All the above make the likelihood of GCN movement across the fence in this area less likely, however, it cannot be discounted entirely.
- 2.5.4 The masterplan for the proposed development illustrates that built development will not include the northern areas of Ty Cerrig; suitable terrestrial habitat for GCN in this area is shown as being retained in the masterplan, with additional tree planting

incorporated into greenspace. Development is sited south of this greenspace, making the likelihood of either encountering a GCN during works, or destroying habitat they utilise as low.

- 2.5.5 Taking the above into account, it is considered that a European Protected Species licence to allow the works, as detailed in this outline application, would not be required.
- 2.5.6 Although the risk of encountering GCN during the proposed development are considered to be low, it is advised that that precautionary working methods are adhered to during any vegetation clearance/ground works on Ty Cerrig to further reduce the risk of encountering GCN.
- 2.5.7 As the precise details of construction works i.e. the extent, duration and timing are not known in detail at this outline stage, it is recommended that a further risk assessment for GCN is undertaken alongside a reserved matters application. This would also include an assessment of impacts upon GCN as a result of the detailed drainage proposals for the site which are not known at this outline stage.

3 ACHIEVING FAVOURABLE CONSERVATION STATUS OF GCN

3.1 What is FCS

3.1.1 Favourable Conservation Status (FCS) is defined for species in Article 1 of the European Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the “Habitats Directive”). According to the Directive, the conservation status of a species is “favourable” when the following criteria are met:

- i. population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- ii. the natural range of the species is not being reduced for the foreseeable future; and
- iii. there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

3.2 Management of Habitat for GCN

3.2.1 To ensure that the population of GCN utilising both freshwater and terrestrial habitat on the site are maintained at a FCS, their breeding ponds and associated terrestrial habitat must be managed so that they continue to provide suitable and high quality habitat for breeding, foraging, sheltering and commuting GCN, over the long term.

Breeding Habitat Management

3.2.2 The Receptor Area currently provides four ponds. Ponds 1, 2 and 3 are confirmed (2019) breeding ponds for a medium population of GCN. Pond 0 was constructed in 2019, by damming overland flow through the Receptor Area.



Plate 9. Pond 0 created in 2019

3.2.3 The following management measures would need to be periodically undertaken on the ponds to ensure that they continue to provide suitable breeding conditions for GCN:

- i. Cutting back surrounding trees, particularly on the southern side so that the pond receives direct sunlight.
- ii. Periodically deepening ponds by removing silt and leaf litter debris so that the ponds do not dry out every summer and open areas of water are provided for displaying newts.
- iii. Removing marginal, floating and submerged vegetation so that areas of open water are provided.
- iv. Fish removal (if required).

Terrestrial Habitat Management

3.2.4 The Receptor Area and Wonderbank currently provide high quality terrestrial habitat for GCN, consisting of a mosaic of woodland, grassland and scrub with many suitable refuges including brash, log and rubble piles.

3.2.5 It is considered that limited management would need to be periodically undertaken within the Receptor Area and Wonderbank to ensure that these areas continue to provide high quality habitat for GCN, but if required would consist of the following:

- i. Selective thinning of scrub on Wonderbank; and
- ii. Construction of new hibernacula using brash from thinning to provide increased sheltering opportunities for GCN.

3.3 Enhancement for GCN

Expansion of GCN Receptor Area

3.3.1 As included in the EMP (Enfys Ecology, 2018), the GCN exclusion fence will be moved to expand the current area of the GCN receptor area. See Drawing ST16882-057 for the proposed relocation. It will encompass rough grassland, and woodland edge habitat to the north of the existing track, which is high quality habitat for GCN.

3.3.2 It is anticipated that the GCN exclusion fence will need to remain in situ for the duration of both the construction of proposed development on the Site and to also enable works to be implemented within the BHA by the BHT. Following the completion of all these works, the opportunity to remove the fence entirely will be considered.

New Pond Creation

- 3.3.3 As described in the EMP (Enfys Ecology, 2018), at least two new ponds will be created on flat areas within Wonderbank, to increase available breeding habitat for GCN. This is in addition to the new pond (as described in paragraph 3.2.2) which has already been created in the Receptor Area in 2019.
- 3.3.4 The two additional ponds will be constructed in areas as shown on Drawing ST16882-057. They will each be at least 100m² and will be left to colonise naturally. Deeper areas of approximately 2m in depth, will be provided, to allow for GCN display behaviour.
- 3.3.5 The addition of these ponds will allow GCN to utilise Wonderbank all year round, with the intention of increasing their population size within the site.

4 DELIVERY MECHANISMS TO ACHIEVE LONG TERM FCS OF GCN

4.1 Land Transfer

4.1.1 In order to ensure the long-term implementation of the required management of the land, the BHA (see drawing ST116882-047) is currently in the process of being transferred to the ownership of the BHT.

4.1.2 BHT is a Charitable Incorporated Organisation that was set up in 2017. It is a registered charity and has the following purposes:

- a) To promote for the benefit of the public the preservation, protection and improvement of historical artefacts, structures, buildings and landscapes which are of historic or architectural importance relating to Wrexham's industrial history;
- b) To promote for the benefit of the public the conservation of the Brymbo Fossil Forest;
- c) To advance the education of the public in the geography, history, natural history and architecture of Brymbo and adjacent areas;
- d) The promotion for the public benefit of urban or rural regeneration in areas of social and economic deprivation and in particular Brymbo by the following means:
 - i. To provide education, training and re-training opportunities and work experience, especially for unemployed people;
 - ii. To provide, maintain and improve recreational facilities; and
 - iii. To provide public amenities.

4.1.3 The Trust has eight trustees and employs 12 staff and a Trust Manager. In total more than 120 volunteers also assist in the work of the trust.

4.1.4 The BHT currently manage the BHA and have held NRW GCN licences to allow a variety of works within the Receptor Area.

4.2 Funding

4.2.1 The BHT have applied for funding from the Heritage Lottery Fund (HLF) to take forward the strategy for the BHA, in line with the purposes as described above which includes for the appropriate long-term management of the Receptor Area and Wonderbank for GCN.

4.2.2 It is anticipated that the outcome of the grant application will be known in late summer 2020. If successful, it is not anticipated that any alternative funding would be required, however, should the bid be unsuccessful, alternative funding sources would

be required, which could be provided by a one-off payment or annually through a service charge.

- 4.2.3 The management of the land by the BHT would ensure local accountability, and through the provision of training for monitoring and management works, local people would be able to continue to be actively engaged in protecting and maintaining the GCN population present. It would also enable the wider aspirations for the BHA in terms of heritage, community engagement and education are achieved alongside the conservation of the GCN population by ensuring that there are no conflicting projects or works which could lead to a decrease in the GCN population.

5 MONITORING REQUIREMENTS

- 5.1.1 The BHT currently commissions Enfys Ecology to undertake GCN monitoring of the breeding ponds within the Receptor Area. Beyond this, a partnership between Enfys Ecology (EE)/North Wales Wildlife Trust (NWWT) will be formed with long term monitoring agreed. Years 1 – 5 will be through EE/NWWT undertaking monitoring, years 6 – 10 will be monitoring by BHT alongside EE/NWWT carrying out one survey per year. Years 11 – 21 will be BHT monitoring with EE/NWWT carrying out compliance orders. All results have been and will continue to be entered on to the Wales online GCN monitoring form
- 5.1.2 The Brymbo Heritage staff/volunteers will be trained to undertake the monitoring so that it is self-sustaining. Training will be provided by ARC or NWWT and the staff/volunteers will participate in the early site monitoring with Enfys/NWWT. GCN monitoring results will be added to the Wales online database held by Cofnod.
- 5.1.3 Monitoring will be required to be in compliance with any GCN licences granted by NRW in the future to facilitate any future works within the BHA but is likely, in the long term to include monitoring of:
- the presence of eggs in the ponds;
 - the peak number of adults recorded across the ponds in one night, either by bottle trapping or torching;
 - the presence of three ponds (minimum);
 - the percentage of each pond's margin shaded to at least 1m from the edge;
 - the percentage of each pond's surface covered by vegetation;
 - the depth of water in each pond at the end of the summer;
 - the presence/absence of fish in each pond; and
 - the water quality of the pond indicated by its invertebrate diversity.
- 5.1.4 The above attributes are those commonly used for a Habitat Suitability Index assessment of ponds (for GCN) combined with quantitative measures of the GCN population.
- 5.1.5 Informed by the previous results of GCN monitoring, targets should be set for each of the above attributes, which would be detailed in the management plan for the BHA. Should monitoring indicate that any of the targets are not being met or are in decline,

then remedial action should be identified and implemented in order to address the suspected reasons for the decline or target failure.

- 5.1.6 It would be the responsibility of the land manager (in this case BHT) to implement any remedial action required informed by ecological advice provided by the monitoring partnership.

6 CONCLUSION

- 6.1.1 It is anticipated that this Framework Strategy will provide the basis going forward to allow more detailed decisions and plans to be made and agreed to ensure GCN remain at a favourable conservation status, alongside current and future development proposals for the Former Brymbo Steelworks area.

7 REFERENCES

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DRAWINGS



DO NOT SCALE FROM THIS DRAWING

KEY

SITE BOUNDARY (PLANNING APPLICATION REF: P/2019/0546)

AREA BOUNDARY

RECEPTOR AREA

AREA REFERENCE

BRYMBO HERITAGE AREA

PERMANENT AMPHIBIAN FENCING

POND LOCATION

2

POND REFERENCE

NOTES:

COORDINATES TO BRITISH NATIONAL GRID.

BOUNDARIES ARE INDICATIVE.

AERIAL IMAGERY SHOWN FOR CONTEXT PURPOSES AND MAY NOT SHOW RECENT DEVELOPMENT SITES.

A	First Issue	23/01/20	MAB	SW	SW
REVISION	DETAILS	DATE	DRN	CHKD	APPD
CLIENT	Parkhill Estates				
PROJECT	Former Brymbo Steelworks, Werexham				
DRAWING TITLE	Brymbo Area Locations and References				
DRG No.	ST16882-047		REV	P0	
DRG SIZE	A3	SCALE	1:4000	DATE	23/01/2020
DRAWN BY	MAB	CHECKED BY	SW	APPROVED BY	SW

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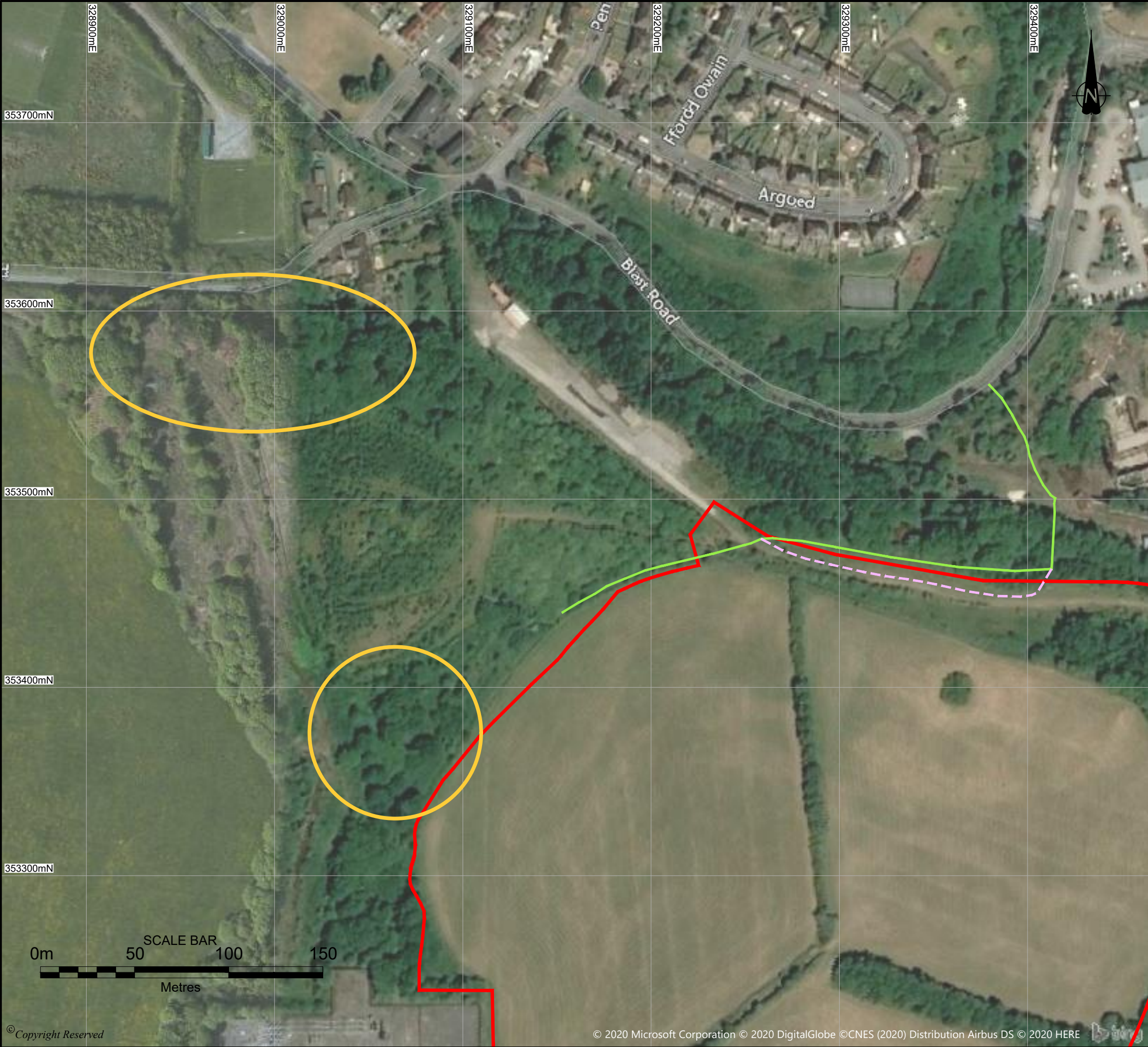
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N:\ST16882 - FORMER BRYMBO STEELWORKS\03 - DESIGN\AUTOCAD\ST16882-047 BRYMBO AREA REFERENCES.DWG



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KEY

- SITE BOUNDARY (PLANNING APPLICATION REF: P/2019/0546)
- CURRENT ALIGNMENT OF PERMANENT AMPHIBIAN FENCING
- PROPOSED RE-ALIGNMENT OF PERMANENT AMPHIBIAN FENCING
- POTENTIAL LOCATION(S) FOR ADDITIONAL PONDS

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A	First Issue	24/02/20	MAB	SEW	SEW
REVISION	DETAILS	DATE	DRN	CHKD	APPD

CLIENT	Parkhill Estates
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PROJECT	Former Brymbo Steelworks, Werexham
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DRAWING TITLE	Enhancement Proposals for Great Crested Newt
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DRG No.		ST16882-057		REV		A					
DRG SIZE		A3		SCALE		1:2000		DATE		24/02/2020	
DRAWN BY		MAB		CHECKED BY		SEW		APPROVED BY		SEW	



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Project
Brymbo Park

Drawing Title
Landscape Masterplan

Date
26.03.19

Project No
27968

Scale
1:2500@A1

Drawing No
RG-M-14

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Revision
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