



BRYMBO IRON AND STEELWORKS, HERITAGE CENTRE

CONSERVATION PLAN FOR GREAT CRESTED NEWTS

DATE	ECOLOGIST	APPROVED	VERSION	COMMENTS
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1.0 Introduction

- 1.1 Enfys Ecology Limited were commissioned by TACP Architects on behalf of Brymbo Heritage Trust to produce a Conservation Plan for great crested newts (GCN) (*Triturus cristatus*) with regards to works in the steelworks area of Brymbo Heritage Area (Wrexham County Council planning application P/2023/0674). Enfys Ecology have previously carried out ecological surveys of the wider Brymbo Heritage Area, including a Preliminary Ecological Appraisal (Cutts, 2022).
- 1.2 The proposed works involve repairs and refurbishments to several buildings and structures within the steelworks area of the site, some of which will be used as visitor and volunteer facilities.
- 1.3 In 2004, GCN were translocated into the Brymbo Heritage Area from the nearby Brymbo commercial development site under a Welsh Government GCN derogation licence. Mitigation ponds were created for the GCN in the ecology area at the western side of the Brymbo Heritage Area, and permanent newt fencing was erected to separate them from the Steelworks and Fossil Forest areas. Unfortunately, no detailed results from the translocation are available; however, it is thought that approximately 5000 individuals (including eggs) were translocated.
- 1.4 The ponds have been monitored for GCN by Enfys Ecology since 2018. A small but presumably breeding population of GCN (and other common newt species) was present at the time of the latest surveys (May/June 2023). The terrestrial habitat in the vicinity of the ponds is also highly suitable for GCN.
- 1.5 This conservation plan covers proposed works within the steelworks area only, which is outside of the existing amphibian fencing and has a low risk of GCN being present. If at any point in the works GCNs are encountered in any working area, all works must immediately cease and a licence from NRW would then be required before works can be permitted to continue.
- 1.6 **No works will be undertaken in the area enclosed by and including the amphibian exclusion fencing.** As GCN are known to be present here, a GCN mitigation licence from NRW is required for **any** works in this area.
- 1.6 This document includes an ecological risk assessment to assess the potential for disturbance or harming GCN during the works, and a suitable Reasonable Avoidance Method Statement (RAMS) to be implemented during the works to mitigate for any potential harm identified.
- 1.7 It is essential that biosecurity procedures are followed at all times by all workers and visitors to site. Biosecurity procedures are detailed in Section 5.

2.0 Amphibian Legislation

- 2.1 Great Crested Newts (GCN) and their habitat are fully protected under both United Kingdom and European Union legislation, including the Wildlife and Countryside Act (WCA) 1981 (as amended), the Countryside and Rights of Way Act (CROW) 2000 and The Conservation of Habitats and Species Regulations 2017 (as amended).
- 2.2 It is an offence to kill, injure or disturb GCNs, or to destroy any place used for rest or shelter by a great crested newt. The GCN is listed on Appendix II of the Bern Convention on the Conservation of European Wildlife and Natural Habitats, and is also listed on Annex II and Annex IV of the EC Habitats Directive.
- 2.3 Further detail of the UK legislation protecting GCN is provided in Section 8.
- 2.4 Common amphibian species (including common frog, common toad, and smooth and palmate newts) have lesser legal protection, under Schedule 5, Section 9 (5) of the WCA 1981 (as amended) and the CROW Act 2000, these animals are protected from sale, or transportation for sale.

3.0 Ecological Risk Assessment

3.1 The site has previously been visited by Enfys Ecology for various ecological surveys, including regular monitoring of GCN populations. The latest site visit was carried out by Richard Cutts from Enfys Ecology on 8th March 2024, undertaking an ecological survey of the proposed car park (immediately east of the steelworks area) and checks of the on-site amphibian exclusion fencing.

3.2 *Site Description*

3.2.1 The development area comprises the former steelworks area of the Brymbo Heritage Area, which is predominantly hardstanding and ephemeral/short perennial habitat, and includes several industrial buildings in various states of disrepair (Figure 3.1). The wider Brymbo Heritage Area extends to the west of the steelworks, and to the south to Brymbo Fossil Forest area.

The site is located in a rural area on the southern outskirts of Brymbo village (Figure 3.2). To the south and west of the site is a large area of fields bounded by scattered trees and hedges. Part of the former steelworks lies to the east of the survey area, beyond a trunk road, and consists of a mixture of bare ground with patchy vegetation, semi-improved grassland and scattered scrub.



FIGURE 3.1: SITE LOCATION – THE APPROXIMATE SITE BOUNDARY IS SHOWN IN RED.
BACKGROUND IMAGE ©GOOGLE MAPS 2024



FIGURE 3.2: WIDER SITE LOCATION – THE APPROXIMATE SITE BOUNDARY IS SHOWN BY THE RED STAR.
BACKGROUND IMAGE ©GOOGLE MAPS 2024

3.3 Risk Assessment

- 3.3.1 GCN and smooth newts were recorded in the northern part of Brymbo Heritage Area prior to 2004. In 2004, GCN were translocated into Brymbo Heritage Area from the nearby Brymbo commercial development site under a Welsh Government great crested newt (GCN) derogation licence. Mitigation ponds were created in the western part of the Brymbo Heritage Area, approximately 100m west of the steelworks area, and are separated from the Steelworks and Fossil Forest by permanent newt fencing (see Section 4).
- 3.3.2 The ponds have been monitored for GCN by Enfys Ecology since 2018. A small but presumably breeding population of GCN (and other common newt species) was present at the time of the latest surveys (May/June 2023). The terrestrial habitat in the vicinity of the ponds is also highly suitable for GCN.
- 3.3.3 The habitats within the development area are primarily hardstanding and ephemeral/short perennial, the latter of which would provide some foraging potential for amphibians; however, while there are places of shelter scattered around the site (scrub, waste material, coarse substrates) they are mainly concentrated around the buildings and most of the site is very exposed. Some parts of the steelworks are seasonally waterlogged, but water in the site is highly iron-rich and considered too polluted for amphibians to use.
- 3.3.4 The nearest ponds are the ones inside the Brymbo Heritage Area, to the west of the development area, and are separated from it by the newt exclusion fencing. Due to the

presence of the exclusion fencing and the limited suitable habitat within the development area, it is considered to be a **low risk** that GCN will be present.

- 3.3.5 As the presence of individual GCN and common amphibians cannot be entirely ruled out, a Reasonable Avoidance Method Statement (RAMS) must be followed at all times by all staff and contractors on site for the duration of the works period (see Section 6).
- 3.3.6 **No works will be undertaken in the area enclosed by and including the amphibian exclusion fencing.** As GCN are known to be present, a GCN mitigation licence from NRW is required for **any** works in this area.

4.0 Amphibian Exclusion Fencing

- 4.1 Amphibian exclusion fencing was previously installed in Brymbo Heritage Area in 2004 under the Welsh Government GCN licence for clearance of the wider Brymbo Steelworks area, and has been subsequently maintained by Brymbo Heritage Trust staff and volunteers (Figure 4.1). The fencing continues to the west beyond the boundary of Brymbo Heritage Area.
- 4.2 The fencing is of a permanent type, and was inspected during the site visit on 8^h March 2024 and was found to be intact and in good condition (Figures 4.2, 4.3 and 4.4). The integrity of the exclusion fencing **must be maintained throughout all of the construction works**, including keeping it free from vegetation. Regular checks will be carried out to ensure that any defects are promptly identified and fixed.
- 4.3 Site access will be through the existing access point to the east of the site. Amphibian exclusion grilles were installed under the Welsh Government GCN licence on access points to the west of the development area (Figures 4.5, 4.6 and 4.7). Sections of fence must not be removed, even temporarily, to allow access elsewhere within Brymbo Heritage Area.
- 4.4 The amphibian exclusion fencing will remain in place following the works.



FIGURE 4.1: LOCATION OF THE AMPHIBIAN EXCLUSION FENCING IN RELATION TO THE DEVELOPMENT AREA; AMPHIBIAN EXCLUSION GRILLES (YELLOW) AND SITE ACCESS POINTS (BLUE) ARE SHOWN.
BACKGROUND IMAGE © OPENSTREETMAP CONTRIBUTORS.



***FIGURE 4.2: AMPHIBIAN EXCLUSION FENCING,
NORTHERN END***



***FIGURE 4.3: AMPHIBIAN EXCLUSION FENCING,
WESTERN END***



***FIGURE 4.4: CONTINUATION OF AMPHIBIAN
EXCLUSION FENCING BEYOND THE WESTERN SITE
BOUNDARY***



***FIGURE 4.5: AMPHIBIAN EXCLUSION GRILLE AT THE
NORTHERN END OF THE FENCING, ADJACENT TO
BLAST ROAD***



FIGURE 4.6: CENTRAL AMPHIBIAN EXCLUSION GRILLE, CLOSEST TO THE DEVELOPMENT AREA



FIGURE 4.7: AMPHIBIAN EXCLUSION GRILLE AT THE WESTERN END OF THE FENCING

5.0 Biosecurity Risk Assessment and Control Methods

- 5.1 Biosecurity means taking measures to ensure that good practices are in place to minimise the risk of importing and spreading invasive non-native species (INNS), pests and infectious disease. As non-native species or diseases could be transmitted in any water or material, a good biosecurity routine is essential, even if invasive non-native species are not apparent.
- 5.2 No INNS, including aquatic/aquatic marginal species, are known to be present on this site, either within the development area or within the conservation area west of the amphibian exclusion fencing; however, INNS may be present in the vicinity, and there is a risk of inadvertently spreading INNS into adjacent habitats. There is also a risk of spreading chytrid fungus to the local GCN population. The biosecurity risk assessment in Table 5.1 summarises the risk at this site, and additional measures required to prevent the spread of INNS and pathogens.
- 5.3 Biosecurity measures help to prevent the spread of INNS and pathogens, and the following must be implemented for any works on the site. These must be followed at all times, in addition to the working measures set out in the Method Statement (Section 6):
- A tool box talk will be provided for contractors covering the biosecurity risk assessment, relevant control measures and general biosecurity procedures.
 - A cleaning station must be set up at the site entrance including facilities to wash boots and vehicles.
 - Footwear of staff entering or leaving the site (for any reason and no matter for how short a time) must be cleaned (i.e., visually free of soil and debris).
 - The wheels or tracks of all vehicles (and any other part which has come into contact with soil) must be thoroughly washed and be free of soil and debris before entering or leaving the site.
 - Soil and vegetation should be washed off with clean water (and brushes). Water should then be disposed of by pouring on site to soak away, ensuring this does not enter any watercourses.
 - Following the removal of organic material, footwear, equipment and tyres/tracks must be sprayed or dipped in disinfectant (Virkon; 10mg/ml or as printed instruction if, for example, using tablets) until it runs off. Spraying should take place away from vegetation.
 - Virkon solution should be rinsed off using clean water at least one minute after application.

- Virkon solution should ideally be kept and flushed into a sink, or drain with water. If on site disposal is required the solution should be disposed of on a large hardstanding area away from vegetation.

5.4 Landscaping must not include any plants listed in Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), even if they are commercially available (e.g. cotoneasters, montbretia), or other plant species with a high risk of spreading in the wild (e.g. *Buddleja davadii*).

TABLE 5.1. BIOSECURITY RISK ASSESSMENT AND OPERATIONAL PROCEDURES

Species	Potential contamination route	Likelihood of risk	Operational Procedure
<i>Chytrid</i> fungus (impacting amphibian species)	Transport of spores on boots or equipment from one waterbody to another, or between amphibian populations.	Low. Standing water on site is unlikely to be suitable for amphibians and no contact by site operatives with other amphibian sites is required; the project ecologist will need to access GCN ponds only if translocation of amphibians is required.	Ensure all contractors and ecologists clean their footwear and equipment before entering and leaving the site. If amphibians are handled, disposable vinyl gloves must be worn. Separate containers will be available for the transport of different amphibian species.
New Zealand pigmyweed (<i>Crassula helmsii</i>)	Spread of species on footwear or machinery.	Low. <i>Crassula</i> is known to be present in north Wales but not found on site. No contact by personnel with other water.	Ensure all ecologists, staff and volunteers clean their footwear between sites. Ensure contractors know what it looks like and all machinery is cleaned prior to arriving on site. If it is found on site it must be treated using glyphosphate.
Other non-native aquatic plant species including: Water fern, parrot's feather, floating pennywort, waterweed, least duckweed	Spread of species on footwear or machinery. Introduction via natural dispersal.	Low. No contact by personnel with other water bodies required as part of the works.	Ensure all contractors clean their footwear and machinery prior to arriving on site. If any plants are identified on site, seek advice on control and removal.

Himalayan balsam	Spread of species via construction machinery/movement of soil. Introduction of seeds via contaminated soil. Introduction via natural dispersal.	Low. Himalayan balsam is not known to be present on site. Moderate. Additional soil may need to be brought on to site for landscaping and planting. Low. Himalayan balsam is present in the region and able to rapidly spread through seed dispersal, but has not been recorded near to the site.	Ensure contractors know what Himalayan balsam looks like. If any plants are identified on site these should be pulled up and left to dry before the seeds set (July/August).
Other INNS plants	Landscaping and planting	Medium	All new planting stock be to grown in an environment free from INNS plants. Non-native ornamental plants with tendencies to spread in the wild must be avoided as planting stock (e.g. cotoneasters, <i>Buddleja davadii</i>).

6.0 GCN Method Statement and Reasonable Avoidance Measures

6.1 *Prior to Works*

- 6.1.1 Immediately before works commence a tool box talk (TBT) will be provided for all contractors involved in the any groundworks, by the site ecologist; this will outline the species of concern, how to identify them and how to proceed if they are found. It will also outline the working method that is detailed in this document. A log will be signed by all contractors who attend the TBT.

6.2 *Construction Phase*

- 6.2.1 The amphibian exclusion fencing within Brymbo Heritage Area must be maintained throughout the construction phase and any defects immediately repaired. The fence and grilles must be kept clear of overhanging vegetation or other obstructions.
- 6.2.2 As no works are planned in the vicinity of the amphibian exclusion fencing, fence checks can be carried out **weekly**. A record of the fence checks and any repairs carried out must be kept.
- 6.2.3 A copy of the TBT and this GCN method statement will be included in an induction for site workers who did not attend the initial TBT. All site workers will sign the attendee log confirming they have received and understood the TBT prior to starting any works.
- 6.2.4 Bulk materials should be stored in bulk bags or raised off the ground on pallets to prevent amphibians seeking shelter within them.
- 6.2.5 Waste materials, including soil and vegetation, should be removed as soon as possible. Waste materials must not be dumped in areas inside (west) of the exclusion fencing.
- 6.2.6 Any removal or dismantling of piles of loose material such as stone, wood, other waste materials or piles of vegetation/brush must be done by hand and not with machinery. The material must then be removed from site before the end of the day or stored off the ground.
- 6.2.7 If vegetation over 10cm in height needs to be removed, the following procedure must be followed:
- Vegetation will be strimmed to 10cm under the supervision of a licenced ecologist, and arisings will be removed from the works zone immediately after strimming; these will be raked and collected up by hand.
 - The strimmed vegetation will be left for a minimum of 24 hours; any amphibians, including GCN, that may have been present within this area would then be active and encouraged to leave of their own accord.
 - The vegetation should then be strimmed to ground level to discourage any amphibians from returning to the works area. This should be carried out following a visual and fingertip search of the works area by a licensed ecologist.

- 6.2.8 If machines are required, they must only be used on areas of bare ground or hardstanding; if necessary, access tracks must be created by stripping grass and topsoil by machine under direct supervision of a licenced ecologist.
- 6.2.9 Should it be necessary to have any excavation left open, these excavations should be securely covered overnight. They must be thoroughly checked prior to back filling, or if leaving them open is unavoidable, a suitable ramp (such as a plank or batter) **must** be provided to allow animals to escape. All excavations will be inspected by a competent person, at the start of each day to ensure no animals are trapped with them.
- 6.2.10 To prevent the spread of disease between amphibian populations, **biosecurity procedures must be followed at all times**; these are detailed in Section 5.
- 6.2.11 **No works will be undertaken in the area enclosed by and including the amphibian exclusion fencing.** As GCN are known to be present, a GCN licence from NRW is required for **any** works in this area.
- 6.3 *Post-construction Phase*
- 6.3.1 Following completion of the construction phase, the amphibian exclusion fencing and grilles will be left in place and continue to be maintained.
- 6.3.2 The fencing will be checked monthly for defects and kept free from overgrowing vegetation.
- 6.4 *Discovery of GCN*
- 6.4.1 **If at any point in the works GCNs are encountered in any working area, all works must immediately cease. If the ecologist is not already present they should be called immediately. A licence from NRW would then be required before works can be permitted to continue.**
- 6.5 *Persons Responsible for Implementing the Works*
- 6.5.1 Brymbo Heritage Trust will be responsible for implementing the works and will be overseeing all contractors working on the development.

7.0 Timing, Phasing and Duration of Construction and Conservation Measures

7.1 Table 7.1 details important dates with respect to GCN ecology and the proposed timetable of works.

TABLE 7.1. TIMETABLE OF WORKS

Year 1 (2024)												Year 2 (2025)											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Great crested newt ecology																							
Hibernation																							
Active																							
Construction phase																							
Machine Shop																							
Agents House																							
Pattern Shop																							
Foundry																							
No. 1 Furnace																							
Cupolas																							
Charging Wall North																							
Charging Wall West																							
Landscaping																							
Interpretation & Exhibition fit-out																							
GCN fence repairs (if required)																							

8.0 Legislation

8.1 *Great Crested Newts*

GCN are protected under the Conservation of Habitats and Species Regulations 2017, known as the 'Habitats Regulations', because they have declined throughout Europe in recent decades.

Under the Habitats Regulations, it is an offence to:

- Deliberately capture, injure or kill any wild animal of an EPS;
- Deliberately disturb wild animals of any such species;
- Deliberately take or destroy the eggs of such an animal; or
- Damage or destroy a breeding site or resting place of such an animal.

Disturbance includes, but is not limited to, any disturbance which is likely:

- To impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or (in the case of animals of a hibernating or migratory species) to hibernate or migrate; or
- To affect significantly the local distribution or abundance of the species to which they belong.

Under the Wildlife and Countryside Act 1981(as amended) it is illegal to:

- Intentionally or recklessly disturb any great crested newt while it is occupying a structure or place which it uses for shelter or protection, 9(4)(b).
- Intentionally or recklessly obstructs access to any structure or place used by a great crested newt for shelter or protection, 9(4)(c).
- Sell, offer or expose for sale any great crested newt, 9(5).

It is, however, legal for you to tend a disabled GCN with the intention of releasing it, or to kill a GCN that cannot recover, as long as the injury was not a result of your unlawful act (Habitat Regulations 44(2); W&CA 10(3)(a)(b)).

9.0 References

Cutts, R. (2022). *Brymbo Heritage Area: Preliminary Ecological Appraisal*. Report reference: EE.373.LB rev. 3. Enfys Ecology Ltd.

Lanton T., Beckett, C. & Foster, J. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth, Suffolk