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GREAT CRESTED NEWT LONG-TERM MANAGEMENT PLAN

Project name:	**Land Adjacent to Anmor, Stryt Las, Rhosllanerchrugog, Wrexham, LL14 2HE**
Species:	Great Crested Newt
Grid Reference:	SJ29374576
Date:	31/01/2025
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Checked by:	Phillipa Stirling MSc ACIEEM
Requested by:	Roger Parry and Partners

1. Background

Planning permission will be sought for the construction of an agricultural storage building on a piece of land in Rhosllanerchrugog, Wrexham.

Wrexham County Borough Council have requested that a long-term management plan for great crested newts be prepared for the site prior to planning permission being granted.

The following document has been prepared to ensure that the works have no impact upon great crested newt and enhance the local environment to increase population resilience in the area.

2. Risk Assessment

No ponds were identified within 500m of the proposed development site; however, the site is located approximately 400m from the Johnstown Newt site (SSSI), which is home to one of the largest known Great Crested Newt populations in Great Britain (JNCC). GCN has been recorded at around 500m from the site. The habitats on site provide suitable terrestrial opportunities for GCN, although there are no potential breeding sites nearby.

Stryt Las a'r Hafod is situated approximately 400m from the site, which is a SSSI, known for supporting one of the largest known breeding populations of the great crested newt in Great Britain, in addition to other common amphibians such as the smooth and palmate newt.

The nearest record of GCN is located 403m north of the site, however is located within a residential street, on a round-about where there are no nearby ponds within 500m.

In addition, there are no ponds within 250m or 500m of the site and the proposals will result in the loss of a very small area of terrestrial habitat. If granted permission, the proposals will have no negative impact upon the favourable conservation status of GCN within their natural range. Reasonable avoidance measures specific to GCN will be required to remove any residual risk and a long-term management plan in regard to GCN has been created given proximity to the Johnstown Newt site.

3. Predicting the impact of development

<u>Pre- and Mid-Development impacts</u>

- Potential harm to individual GCN: The area of the site to be developed is neutral grassland which is currently unmanaged and offers a suitable habitat to GCN. In the absence of mitigation, the likelihood of site clearance and ground works have

limited potential to kill or injure individual GCN due to the distance of the site to any viable breeding pond.

- Studies have demonstrated that 95% of all summer refuges of GCN fall within 63m of their summer breeding pond (Jehle, 2000). Subsequent studies also found that capture rates of GCN were at their highest within 50m of a breeding site with a significant reduction in capture rates beyond 100m (Cresswell and Whitworth, 2004).

Long-term impacts

- Loss/damage to aquatic habitats: the proposed development will not result in loss or damage to aquatic habitats.

- Loss of foraging habitat: the habitat within the proposed development site to be lost is made up of neutral grassland and areas of mixed scrub where GCN could use this habitat for foraging purposes. Permanent loss of neutral grassland will not have a detrimental impact on the GCN population at a larger scale. By providing a set of enhancement measures the development will provide a net gain in good quality hibernation, foraging and sheltering habitat for GCN at the site.

- Fragmentation and isolation: the development will result in a change of land use from grassland to a small area of hardstanding. The building will not cause any fragmentation of habitats as the surrounding terrestrial habitat will remain undeveloped.

- Plans for the site will include the retention of open grassland areas with the introduction of low-density grazing. The management of the grassland provides opportunities to retain and enhance terrestrial habitat for amphibians. This will ensure the long-term favourable conservation status of GCN on site when paired with other habitat creation measures such as creation of an amphibian hibernacula and the retention and management of scrub parcels scattered across the site. With appropriate mitigation and enhancement of the site, the overall predicted impact of the development on site is: low.

4. Mitigation

Legislation

Great Crested Newts (GCN) are a European Protected Species (EPS) and they and their habitats are fully protected under national (Wildlife & Countryside Act 1981 (as

amended)) and European law (The Habitats and Species Regulations 2017 (as amended)). The combined legislation makes it illegal to:

- deliberately capture, kill or injure a great crested newt;
- damage or destroy a breeding site or resting place
- intentionally or recklessly obstruct access to any place used for shelter and protection including resting and breeding places, whether occupied or not;
- deliberately, intentionally or recklessly disturb a great crested newt when in a place of shelter;
- possess a great crested newt, or any part of it, unless acquired lawfully;
- sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

Site induction

- A toolbox talk will be given to all site personnel in order to make them aware of the possible presence of GCN, how to identify this species and the avoidance measures to be used on site.
- A paper copy of the avoidance measures will be retained on site together with the contact details of the GCN licensed ecologist.

Reasonable Avoidance Measures

Timing & duration

- All work should take place during daylight hours when GCN are unlikely to be moving around the area.
- The proposed amphibian hibernacula will be created following the completion of works and when amphibians will not be active above ground (November-February).

Site clearance

- All grassland to be disturbed on site will be maintained at a height of 10cm before March (in any given year) in order to reduce the number of potential resting/feeding opportunities on site.
- Any possible objects which may conceal GCN such as large stones, logs or other materials will be inspected and removed from site. If any GCN are found, work should stop and NRW contacted for guidance on appropriate action. Works may only resume on receipt of the appropriate licence issued by NRW.

- A fingertip search of the land will be completed by an experienced ecologist prior to work on site starting.

Site compound

- The site compound will be situated at the entrance point where there is an area of existing crushed stone to avoid creating GCN resting places beneath stored materials etc.
- All site materials will be stored on pallets or other raised objects to avoid creating resting places/refuges for GCN.
- Any toxic or poisonous materials should be safely stored within a locked container.

Construction methods and special precautions

- All excavations on site will be covered at night or ramps will be provided to allow amphibians to exit excavations. All excavations will be checked for amphibians each morning prior to the re-commencement of works.
- All exposed new pipework and drains will be capped at night so as to avoid trapping amphibians.
- All excavated materials/waste will be stored in skips or similar and not on the ground where it could be used as a refuge/resting area by amphibians. Alternatively, all waste will be removed from site daily unless being used to create the amphibian hibernacula.
- All stored building materials that might be used as temporary resting places by amphibians will be stored off the ground on pallets or similar.

If GCN are found at any point during the development or activities outlined above, works will stop and an appropriately qualified ecologist will be contacted for advice, as well as Natural Resources Wales. Contractors are prohibited from handling GCN.

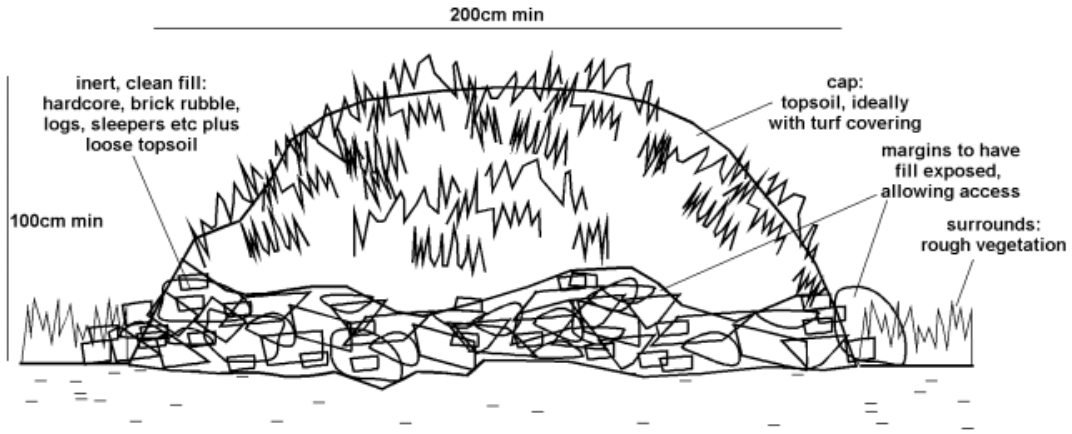
Habitat creation and management

Creation of an amphibian hibernacula

One amphibian hibernaculum will be created on site to increase terrestrial opportunities and provide brumation sites for amphibians in the area. This will contribute to the overall resilience of GCN and other animals which rely on suitable hibernation sites. The hibernacula will measure 2m long by 1m wide and be at least 1m high, to follow the 'Suggested hibernaculum design' within Figure 3 of the Great Crested Newt Mitigation Guidelines.

The base of the hibernacula will be constructed using hardcore, brick rubble, logs, rough timber and loose topsoil. There should be sufficient ground-level gaps between the materials to allow newts to enter several locations. The hibernacula will be built up in layers and overlaid with topsoil and a final layer of turf.

Figure 3: Suggested hibernaculum design
This design mimics artificial and natural conditions in which great crested newts have frequently been found over-wintering. Dimensions should not be below 2m length x 1m width x 1m height. The illustrated design would be suitable for locating on an impermeable substrate. On free-draining substrates, the design is largely similar but the bulk of the fill is sited in an excavated depression in the ground. Hibernacula should ideally be positioned across a site, both close to and distant from breeding ponds, always in suitable terrestrial habitat and above the flood-line.



Native scrub

Throughout the site there are various soil heaps which appear to have previously been vegetated with native mixed scrub (FIGURE 1). These areas should be replanted as part of the long-term management plan.

All scrub planting to be carried out will be done during the first available planting season after starting work on site. Tree planting will take place between November and March when plants are dormant and ground moisture levels are high.

Shrubs will be planted at 3m x 3m density using 40/60cm bare root plants. All plants will be fitted with appropriate spiral guard and support stake. Species to be planted are: Guelder rose, hawthorn, dogwood and hazel as a 25% mix.

The base of all shrub planting will be covered with bark mulch in order to suppress the growth of competing vegetation.

All shrub planting will be watered once a month between March and September during the first 3 growing seasons, unless usual rainfall provides the plants and ground with sufficient resources.

Guards and canes to be removed from the shrubs from year 5-8, provided the plants are established and not at risk from browsing pressure.

Scrub development will be closely monitored. If woody species take hold in open grassland areas, annual cutting will be carried out in March to a minimum cut of 15cm.

Native hedgerow

All hedges around the boundaries of the field will be retained and protected during all work. Standard hedgerow management procedures should be followed annually. All hedgerow bases will remain free from disturbance and ideally livestock will not have access to the hedge base. The hedgerows will also be retained at a minimum height of 2m and a minimum width of 2m.

Neutral grassland

- The site should not be grazed from 15th of May to the 30th July annually to allow all flowering plants in the sward to set seed for the following year.
- If grazing cannot be avoided during this period the density, should be significantly reduced e.g. 2 sheep per hectare.
- Using the sheep to graze the land will create a mosaic affect, with patched of short and long vegetation. This will also allow for the development of the mixed scrub patches.
- No artificial fertilizers or herbicides will be applied to the land.

References

Cresswell, W. and Whitworth, R., 2004. An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt. Natural England Research Reports, p.36.

Jehle, Robert. (2000). The terrestrial summer habitat of radio-tracked great crested newts (Triturus cristatus) and marbled newts (T. marmoratus). Herpetological Journal. 10. 137-142.

FIGURE 1 BASELINE HABITAT MAP



FIGURE 2 PROPOSED SITE PLAN

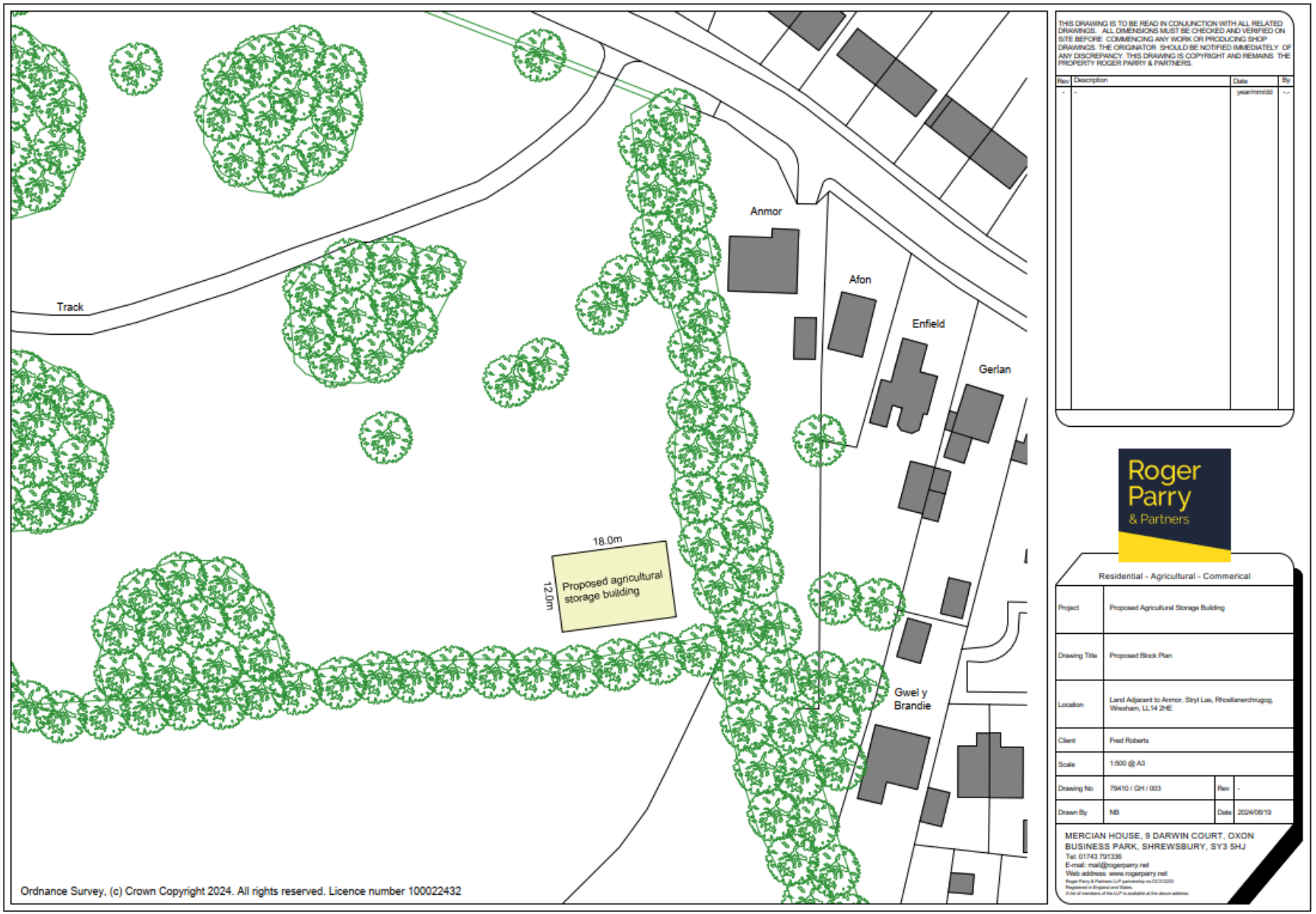


Table 1. Biosecurity Risk Assessment

Species	Potential Contamination Route	Likelihood of Risk	Operational Procedures/Actions required to minimise risks
Himalayan balsam	Introduction of species via construction machinery. Introduction of seeds via contaminated soil.	Low. Himalayan Balsam is not known to be present on site or in the locality. Low. There are no requirements to import soil.	Ensure owner and contractors know what Himalayan Balsam looks like. If any plants are identified these should be pulled up and left to dry before the seeds set (July/August).
Japanese knotweed	Introduction of species via construction machinery. Introduction of fragments via contaminated soil.	Low. Japanese knotweed is not known to be present on site or in the locality. Low. There are no requirements to import soil.	Ensure contractors know what Japanese knotweed looks like. If it is identified on site, refer to the Environment Agency's Japanese knotweed Code of Practice.
Chyrid fungus	Ecologists, aquatic survey equipment.	The Chyrid fungus has been identified in Powys. This fungus has affected amphibians globally and has caused the extinction of species. The risk is low but serious.	Ecologists and other contractors disinfect boots and equipment before entering sites known for supporting GCN populations.
Tree diseases including Chalara, Phytophthora	Planting of infected trees.	Low. All trees to be planted will be obtained from a local nursery.	Ensure trees purchased from nurseries registered as disease-free.

Table 2. Annual work schedule for habitat creation and maintenance, Year 1-10. To be used for annual monitoring audit.										
	Year									
Activity	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Hibernacula										
Creation of 1x amphibian hibernacula.	*									
Turf cap watered until established. Monthly inspection.	*									
Check presence and condition of hibernacula adjacent to housing site.	*	*	*	*	*	*	*	*	*	*
Scrub										
Planting of scrub on site.	*									
Check health of all shrubs planted.	*	*	*	*	*					
Water all newly planted shrubs once a month between March and September, unless rainfall is sufficient to sustain the plants.	*	*	*							
Replace any loss of shrubs.	*	*	*	*	*					
Retain shrub bases free from undesirable species e.g. dock, thistle, and nettle. Manual removal if present.	*	*	*	*	*					
Removal of spiral guards upon establishment of shrubs.								*	*	*
Management of hedgerow										
Cut hedgerows annually and maintain 2 x 2 m profile *at least.* Ideally hedges will be allowed to grow up to a height of 3m.	*	*	*	*	*	*	*	*	*	*
Management of grassland										
Grazing only between August – April *or* very low-density grazing.	*	*	*	*	*	*	*	*	*	*