



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE

AMPHIBIAN CONSERVATION PLAN

Project name: Land Off, St Marys Avenue, Overton, Wrexham, LL13 0ES

Species: Great Crested Newt

Grid Reference: SJ37614182

Date: 23/10/2024

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Checked by: William Prestwood BSc Director

Requested by: Pickstock Homes Ltd

Background

Planning consent has been granted for the erection of 46 dwellings, associated access, landscaping and supporting infrastructure under reference number: P/2023/0186.

Wrexham County Borough Council have requested that an Amphibian Conservation Strategy 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.

Risk Assessment

A total of 6 ponds are mapped within 500m of the site boundary. GCN recorded 1.1km from the site. The areas are concentrated to the southeast of the site:

1. An area beneath mature trees to the north of Station Road. This area does not hold water and there is no pond present.
2. A dirty water pit for farm and slurry run-off. Not a pond.
3. A shallow depression in an improved grassland field which floods seasonally. No discernible features of a pond.
4. An area beneath mature trees which rarely holds water and remains shaded all year. No suitable aquatic habitat for GCN and not a pond.
5. Two areas mapped as ponds on the south side of Station Road, 400m from the site. No access to the ponds was possible but aerial imagery suggests that these areas are wooded and/or dry.

A further two ponds appear on some mapping platforms at the southeast corner of the site boundary. Both ponds were filled in when four residential dwellings were built on the plot of land under consent P/2016/0504. No ponds exist in this area now.

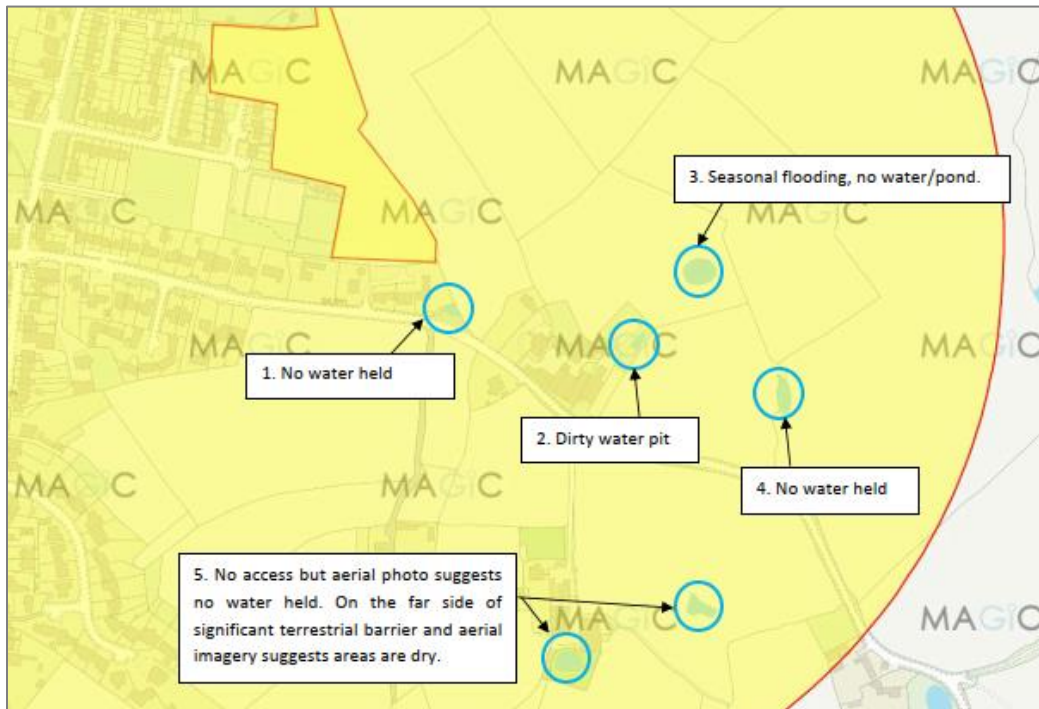
The Preliminary Ecological Assessment for the site found that there are no ponds within 250m of the site and the closest record of GCN originates from a set of ponds approximately 1.1km northeast. Results from the Cofnod search confirm that there are no records of GCN within 1km of the site boundary. The improved grassland offers very limited shelter or foraging opportunities and many of the hedgerow bases have been damaged by grazing livestock therefore offering poor suitability as places for brumation.

The status of two ponds 400m south is unknown although all available evidence suggests that these areas are wooded and unlikely to hold water year-round. The terrestrial habitat surrounding both (improved grassland) also reduces the likelihood of them providing

suitable aquatic opportunities for GCN. Station Road separates the site from the land to the south, as well as new residential development, forming a terrestrial barrier to dispersal.

The Amphibian Conservation Plan has been designed to:

- Remove any residual risk to amphibians at ground level,
- Re-instate a suitable wildlife pond to replace those lost at the southeast corner,
- Create an amphibian hibernaculum to improve terrestrial opportunities on site.



Reasonable Avoidance Measures Method Statement

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 pond to be created for enhancement will be dug from an area of short grazed improved grassland. This area does not offer shelter or hibernating opportunities. The activity will be carried out between November and February when GCN are not active to ensure that newts are not present on the land and therefore will not be disturbed by the works.
- The proposed amphibian hibernacula will be created at the same time as the pond, using spoil from its creation.

- The pond and hibernacula will be fully operational in time for the following GCN breeding and hibernation season.

Site clearance

- All improved 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 on an area of hard standing 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

Creation of a wildlife pond

One wildlife pond will be created in the southeast corner of the site. The new pond will be irregular in shape in order to retain diversity around the margins. The overall surface area will be at least 160m² and the pond will be securely fenced for safety and conservation reasons. Suitable fencing will be timber post and rail to allow movement of wildlife at ground level but prevent dogs and people entering.

The pond will be positioned within a natural depression in the land to facilitate the collection and retention of water in this area. The pond will be created with a sloping profile with no sudden changes in depth in case children do gain access to the pond.

The pond will be planted with marginal, submerged and floating aquatic vegetation to provide feeding, breeding and sheltering opportunities immediately. Species will include: water forget-me-not, brooklime, *Potamogeton natans*, spiked water milfoil, marsh marigold, water plantain, purple loosestrife, and water mint.

There will be no tree planting within the vicinity of the pond to ensure that the margins are free from shade. Fish will not be introduced at any point.

The pond will be excavated on an area of existing improved grassland during the winter months when temperatures are below 5°C so as to avoid the disturbance of hibernating amphibians. The material excavated for the construction of the pond and a layer of turf will be retained prior to excavation works to use on the hibernacula.

The pond is **not** to be used as an attenuation area and this has previously been wrongly identified on the landscape plans.

Creation of an amphibian hibernacula

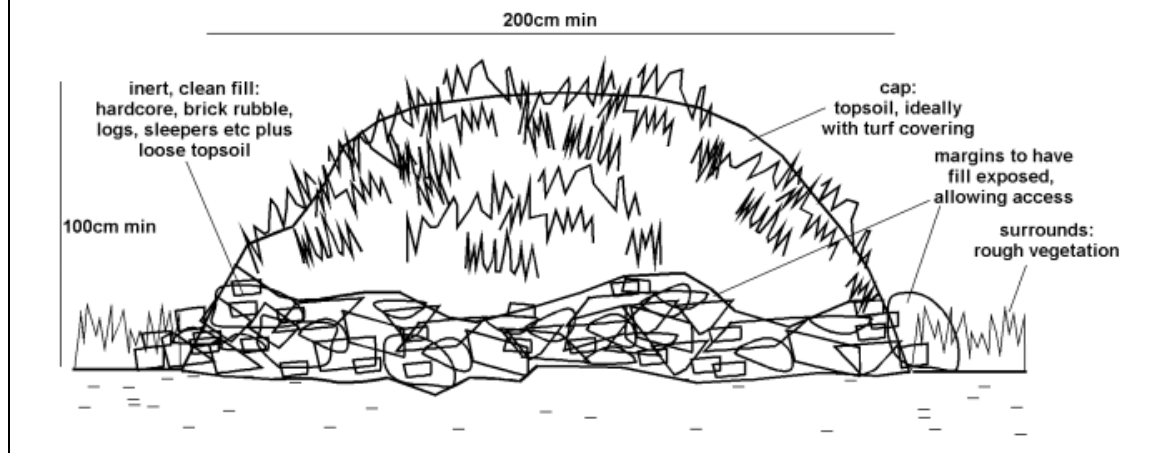
One amphibian hibernaculum will be created on site within 5m of the new pond. The hibernacula will measure 2m long by 1m wide and be at least 1m high, to follow the 'Suggested hibernaculum design' within Figure 3 of the Great Crested Newt Mitigation Guidelines.

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 in several locations. The hibernacula will be built up in layers and overlaid with topsoil and a final layer of turf.

The hibernacula will be surrounded by wildflower grassland.

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.



Wildflower grassland

Areas of existing neutral grassland will be scarified using a machinery mounted rake/tines. 50% bare earth will need to be established before new seed can be introduced. The aim will be to de-compact the existing turf layer, to allow new seed to establish.

Wildflower seed will be sown at a rate of 2.5g/1m² or 10kg/1 acre. Seed mix will be chosen based on the soil type in the area.

All areas which are seeded will be rolled to finish to ensure that all seed is in good contact with the soil.

All grassland areas which are to be over-seeded will be mown during the first year in order to control annual weeds. During the second year, the areas will be allowed to flower first before any mowing. Cutting in August is recommended.

Annual mowing will then ensue, removing **all** cuttings.

Key management points:

- All cuttings produced as a result of mowing will be removed from the grassland immediately.
- Shrubs and bracken will make up no more than 20% of the sward on site.

Proposed Site Plan



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.
Invasive aquatic plants: Water fern, <i>Azolla filiculoides</i> Parrot's-feather, <i>Myriophyllum aquaticum</i> Floating pennywort, <i>Hydrocotyle ranunculoides</i> Australian swamp stonecrop <i>Crassula helmsii</i> Water hyacinth, <i>Eichornia crassipe</i> Water primrose, <i>Ludwigia peploides</i>, <i>Ludwigia uruguayensis</i> (= <i>L. grandiflora</i>) Canadian waterweed, <i>Elodea canadensis</i> Curly waterweed. <i>Lagarosiphon major</i> Nuttall's waterweed, <i>Elodea nuttalli</i> Waterweeds (other <i>Elodea</i>), <i>Elodea spp</i> Least duckweed, <i>Lemna minuscula</i>	Introduction of species via construction machinery and as propagules on boots, waders, bottle traps, nets etc.	Medium. Surveyors (and to a lesser extent, contractors) may well have previously been to sites where these species are present.	Avoid entering ponds whenever possible. Consider using survey techniques that constitute a lower bio-security risk (eg torching). Use bottle traps on a site-specific basis. Consider using nets and other equipment on a site-specific basis where non-native species have been recorded. Clean equipment, boots/waders and clothes after each survey. Where surveys entail surveys of two or more ponds, consider provision of duplicate equipment including boots/waders. Based on degree of risk, consider surveying ponds supporting invasive species last or use a team to specifically survey ponds supporting non-native species.
Fish (all species)	Deliberate introduction.	Low: The owner has agreed to a strict policy of no fish introduction.	Continued agreement by the owner.
Chyrid fungus	Ecologists, aquatic survey equipment.	The Chyrid fungus has been identified in Powys. This fungus has affected amphibian	Ecologists and other contractors to disinfect boots and equipment before entering site/ponds.

		globally and has caused the extinctions of species. The risk is low but serious.	
Tree diseases including Chalara, Phytophthora	Planting of infected trees.	Low	Ensure trees purchased from nurseries registered as disease-free.

Ecological Compliance Audit

No	Key Performance Indicator	Evidence required - this list should be adapted to reflect the agreed method statement	Pass (Yes/No) Comment	What action is required as a result of findings?
1	A suitably experienced licensed ecologist will be appointed and retained during the life time of this project to provide on-site advice.	Letter, contract or other document outlining the appointment of an Ecologist for the lifetime of the project.		
2	Prior to the start of any works on site, all site workers will be inducted by the ECoW. This induction will cover the agreed GCN Method Statement, the legal status of the species, the method of working, and action to be taken if protected species are encountered.	Copy of documents from ecological induction, showing content of induction. List of induction attendees.		
3	Preparation and implementation of a bio-security risk assessment as detailed in the method statement.	Bio-security risk assessment is available for inspection. Log of implementation of bio security measures is available for inspection and shows that they have been implemented. Field observation shows that bio security measures are in place e.g. foot washes.		
	E.1 Site clearance			
4	A finger-tip search for GCN will have been carried out prior to	Record and photographs of measures.		

	groundwork starting.			
5	All improved 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.	Record and photographs of measures.		
	E.2/E3 GCN habitat modification and creation for mitigation and compensation			
6	Creation of pond on site. Creation of hibernacula.	Confirmation from landowner as measures are implemented.		
	F and H: Long Term site enhancements			
7	On-going maintenance of habitat features.	Confirmation from landowner as measures are implemented.		
Any other points to note/comments from auditor:				
Auditor name and organisation		Signature	Date	

Table 1. Annual work schedule for habitat creation and maintenance, Year 1-10. To be used for annual monitoring audit.

Activity	Year									
	1	2	3	4	5	6	7	8	9	10
Fencing										
Post and sheep netting fence will be installed around the the proposed pond and hibernacula area.	*									
Pond										
Trial pit digging to establish pond creation methodology.	*									
1x new pond created in conservation area.	*									
Aquatic vegetation planted around pond margin.	*									
Check presence and replace any losses to aquatic plants.		*	*	*	*					
Habitat Suitability Index Assessment on pond.		*		*		*		*		*
Check presence and extent of vegetation encroaching on pond margin.		*		*		*		*		*
Monitor water levels annually to ensure habitat remains suitable.	*	*	*	*	*	*	*	*	*	*
Check presence of fish or non-native invasive species.	*	*	*	*	*	*	*	*	*	*
Hibernacula										
Creation of 1x amphibian hibernacula	*									
Turf cap watered until established. Monthly inspection.	*									
Check presence and condition of hibernacula adjacent to housing site.	*	*	*	*	*	*	*	*	*	*
Wildflower grassland										
Scarify/harrow areas to be over-seeded to reveal 50% bare ground.	*									
Sow appropriate wildflower mix at agreed density, followed by rolling.	*									

Mow during the first year of establishment to control annual weeds.	*									
Mow annually during August to allow all flowering plants to bloom and, where appropriate, drop seed. Remove all cuttings.		*	*	*	*	*	*	*	*	*
Check presence and % cover of shrubs and bracken. Instigate management if threshold exceeded.	*	*	*	*	*	*	*	*	*	*