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Land at Halghton Villa, Horseman's Green

Plan of Reasonable Avoidance Measures (Great Crested Newts)

Land at Halghton Villa
Horseman's Green
Wrexham
SY13 3DY

Produced by P J Ecological Solutions on behalf of Mr Huxley

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Version 1

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Reviewed by Paul Roberts

1 INTRODUCTION

P J Ecological Solutions were commissioned by Mr Huxley to provide a plan of reasonable avoidance measures which will be carried out to ensure that great crested newts (*Triturus cristatus*) are protected during the proposed works at Halghton Villa, Horseman's Green (planning ref: P/2024/1655).

This plan has been informed by and should be read alongside the document *Land at Halghton Villa, Horseman's Green; Ecological Appraisal* (P J Ecological Solutions, 2025) and correspondence from Natural Resources Wales dated 21st May 2025 (ref. CAS-280629-R8N6).

2 SITE CONTEXT

The site comprises an area of improved cattle-grazed grassland, ~0.4ha in area, centred around approximate site centroid SJ44494077.

There are no ponds or other bodies of standing water within the site boundaries; however, there are four ponds within 250m of the site boundaries, evidence of which and the relative positions of which are shown on Figures 1 to 4, and 5, respectively. There are numerous further ponds within 500m of the site boundaries.

Local records of several great crested newt (~500m from the site boundary) were retrieved during the informal data search undertaken as part of the desk study. Additionally, it is understood that Pond 2 was confirmed to support a breeding population of great crested newt within the last five years.

3 HABITAT SUITABILITY INDEX ASSESSMENTS

To determine whether any of the ponds within the site's 250m 'zone of influence' are likely to support great crested newt, each of the ponds was individually assessed using the Habitat Suitability Index tool detailed in *ARG UK Advice Note 5* (ARGUK, 2010).

Pond 1, which is set upon the far-side of the Halghton Villa farmyard, ~140m west of the site, features poor water quality and is extensively used by local waterfowl (see Figure 1). It was assessed as having 'below average' (almost 'poor') suitability for for great crested newt (see Table 1).

Table 1: Habitat Suitability Index (Pond 1).

Category	HSI Value	HSI Score
Geographic Location	Optimal	1.00
Pond Area	500m^2	1.00
Pond Permanence	Never	0.90
Water Quality	Poor	0.33
Shade	50%	1.00
Waterfowl Effect	Major	0.01
Fish Presence	None	1.00
Pond Density	>10	1.00
Terrestrial Habitat	Good	1.00
Macrophyte Cover	5%	0.35

Result	**Below Average**	**0.50**

Pond 2, which is set within the garden area of a neighbouring landowner, ~200m north-northwest of the site, is relatively small and is somewhat lacking in vegetation cover (macrophyte cover and bankside vegetation); however, it appears otherwise well-suited to the needs of the species (see Figure 2). It was assessed as having 'good' suitability for great crested newt (see Table 2). It is understood that this pond was confirmed to support a breeding population of great crested newt within the last five years.

Table 2: Habitat Suitability Index (Pond 2).

Category	HSI Value	HSI Score
Geographic Location	Optimal	1.00
Pond Area	225m^2	0.40
Pond Permanence	Never	0.90
Water Quality	Good	1.00
Shade	30%	1.00
Waterfowl Effect	Minor	0.67
Fish Presence	Absent	1.00
Pond Density	>10	1.00
Terrestrial Habitat	Poor	0.33
Macrophyte Cover	15%	0.45
Result	**Good**	**0.72**

Ponds 3 and 4, which are set together within the expansive pasture to the northeast of the site, ~200m northeast of the site (see Figures 3 and 4), would both be well-suited to the needs of the species were it not for the extensive use of both by local waterfowl. They were both assessed as having 'below average' suitability for for great crested newt (see Tables 3 and 4).

Table 3: Habitat Suitability Index (Pond 3).

Category	HSI Value	HSI Score
Geographic Location	Optimal	1.00
Pond Area	400m^2	0.80
Pond Permanence	Never	0.90
Water Quality	Moderate	0.67
Shade	60%	1.00
Waterfowl Effect	Major	0.01
Fish Presence	Possible	0.67
Pond Density	>10	1.00
Terrestrial Habitat	Good	1.00
Macrophyte Cover	10%	0.40
Result	**Below Average**	**0.54**

Table 4: Habitat Suitability Index (Pond 4).

Category	HSI Value	HSI Score
Geographic Location	Optimal	1.00
Pond Area	550m^2	1.00
Pond Permanence	Never	0.90
Water Quality	Moderate	0.67
Shade	50%	1.00
Waterfowl Effect	Major	0.01
Fish Presence	Possible	0.67
Pond Density	>10	1.00
Terrestrial Habitat	Good	1.00

Macrophyte Cover	20%	0.50
Result	**Below Average**	**0.70**

RAPID RISK ASSESSMENT

To assess the risk of committing an offence in relation to great crested newt, the Natural England Great Crested Newt Licence rapid assessment tool has been used (see Table 5). This assessment assumes that the ponds contain breeding populations of great crested newt and that no mitigation measures are put in place for the works.

Table 5: Natural England Rapid Risk Assessment Tool.

Component	**Likely effect** (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	**Notional offence probability score**
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1
Land >250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.005
Individual great crested newts	No effect	0
	Maximum:	0.1
Rapid risk assessment result:	**GREEN: OFFENCE HIGHLY UNLIKELY**	

Guidance on risk assessment result categories

"Green: offence highly unlikely" indicates that the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required. However, bearing in mind that this is a generic assessment, you should carefully examine your specific plans to ensure this is a sound conclusion, and take precautions (see **Non-licensed avoidance measures tool**) to avoid offences if appropriate. It is likely that any residual offences would have negligible impact on conservation status, and enforcement of such breaches is unlikely to be in the public interest.

Given the results of the rapid risk assessment, no further surveys of the ponds are recommended. However, out of an abundance of caution, it has been agreed that below reasonable avoidance measures (RAMs) will be carried out to ensure that great crested newts are protected during the proposed works.

4 REASONABLE AVOIDANCE MEASURES

1. The grazed pasture which characterises the site is a habitat type which is poorly suited to the needs of all native herpetofauna. To ensure that this does not change, the grassland will be maintained at the existing short sward until the development works begin.

2. A suitably qualified ecologist will be appointed as the site ecologist prior to the commencement of works. They will provide all contractors involved in the works with an ecological induction (a 'toolbox talk') prior to the commencement of works, detailing the legal status of common herpetofauna – including great crested newt – and the procedure to be followed if they are encountered. The site ecologist will directly supervise the installation and removal of the one-way amphibian fencing and the removal of vegetation from the site and will remain 'on-call' throughout all other stages of the project.

3. Prior to the commencement of all other works, one-way amphibian fencing will be erected around the perimeter of the proposed works area, which will allow any amphibians present to leave but not to re-enter the works area (see Figure 6). The fence will be constructed of '1000 gauge' transparent polythene sheeting, woven polypropylene, or black polythene DPC; will be supported by wooden-stakes, fitted 1000mm – 1500mm apart on the works site-side of the fence, to which it will be affixed by either nails or staples; will extend 500mm above ground level and 200mm below ground level; will feature a 'top curl', folded-over

twice, using a further 200mm of material, and an ‘under curl’, using a further 100mm of material; and will be installed at a 45° angle away from the works site. To provide access to the works area for machinery and plant, some form of modular channel or grid system will be fitted, which will be installed per the manufacturer's instructions. The fence will be installed in a single day, under the direct supervision of the site ecologist, who will undertake a fingertip-search of the grassland immediately ahead of the digging of any trenches. The fence will remain in-situ until the completion of the project. To ensure that the fence is and remains fit-for-purpose, it will be inspected, by the site ecologist, at weekly intervals until the completion of the project, who will report any defects to the applicant who will ensure that they are fixed before the next check. The fence will be removed in a single day, under the direct supervision of the site ecologist, who will undertake a fingertip-search along the base of the fence immediately ahead of its removal.

4. Once the fence has been installed, the site will be left undisturbed for a period of at least 8 days. Following this period, the vegetation (grass) within the site will be reduced to ground level. This work will be undertaken under the direct supervision of the site ecologist, who will undertake a fingertip search of the grass immediately ahead of the mower, to ensure that no newts are present. Upon the completion of the mow, the site will be left for a further 48 hours, following which the remainder of the site works may be undertaken. The site ecologist will remain ‘on-call’ for the remainder of the site works.

5. To reduce the risk that any hibernating newts may be encountered during the works or otherwise affected by the works, the fence will be installed and the vegetation removed outside of the winter period (outside of the period mid-October to mid-March) and only when ambient temperatures have not consistently dropped below 8°C for at least four days and nights. For the same reason, the fence will not be removed during this period.

6. In the unlikely event that any great crested newts are found during the works, all works will immediately cease, and Natural Resources Wales will be contacted for advice. If any newts (of any species) are found when the site ecologist is not present, all works will immediately cease and contractors will aim to take a clear photograph of the animal and will contact the site ecologist for advice. If it can be determined that the newt is a smooth or palmate newt (*Lissotriton vulgaris* or Lis*sotriton helveticus*), then contractors will be advised to capture it in a gentle fashion using protective gloves and move it to a safe location outside the working area. In the event that a great crested newt has been found, all works will immediately cease, and Natural Resources Wales will be contacted for advice.

7. To prevent the spread of invasive non-native species (INNS), such as Chytrid, to or from the site, the measures detailed within the below biosecurity risk assessment will be adhered to for the duration of construction and operational phases of the scheme.

5 BIOSECURITY RISK ASSESSMENT

No invasive non-native species (INNS) were identified during the survey of the site or its immediate surrounds. However, as some INNS (e.g., Chytrid) are not always apparent, and to prevent the spread of INNS to the site, it is considered proportionate that the development should proceed only in strict accordance with a suitable biosecurity risk assessment.

The below risk assessment and method statement details the risks of INNS or amphibian diseases being imported to or exported from the site because of the proposed development, and the control measures to be adopted to mitigate those risks.

Table 6: Biosecurity Risk Assessment and Control Measures

Potential Hazard	Risk (Very Likely, Likely, Possible, Unlikely, Very Unlikely)	Control Measures
The introduction of INNS to the site from elsewhere.	**Seeds or sections of plant capable of regrowth may be inadvertently brought onto the site from elsewhere.** Seeds or sections of plant capable of regrowth can be carried upon work boots, tools, tyres, machinery, or plant. Although it is considered **unlikely** that any of the above will be brought direct from another site (where INNS are present and suitable controls are not in place), control measures will be put in place as a precautionary measure.	To mitigate the risk of INNS or amphibian diseases being introduced to the site from elsewhere, or being spread elsewhere from the site, the following control measures will be adhered to: 1. A boot and tool-washing station will be established at the site entrance for the duration of the project. This will include a footbath filled with 1% Virkon Aquatic solution, along with a stiff-bristle brush and spray bottles filled with the same. 2. All personnel entering or leaving the site will be required to completely clean any vegetation or soil from their boots and tools using the stiff-bristle brush within the footbath. Soiled clothing will be sprayed using the spray bottles. 3. The tyres of any machinery or plant entering or leaving the site will be cleaned of soil using a pressure washer until completely clean. 4. Any soil removed when personnel or machinery is being brought onto the site will be gathered and kept on-site until it can be disposed of into a 2m depth hole on-site. Any soil removed when personnel or machinery is leaving site will be gathered and kept on-site.
The spread of INNS from the site to elsewhere.	**Seeds or sections of plant capable of regrowth may be inadvertently taken elsewhere from the site.** Seeds or sections of plant capable of regrowth can be carried upon work boots, tools, tyres, machinery, or plant. No INNS were identified during the survey of the site or its immediate surrounds, and so it is considered **very unlikely** that INNS will be spread from the site to elsewhere. However, as a precautionary measure*, the same control measures will apply to any boots, tools, tyres, machinery or plant leaving the site, as entering the site. * I*n case any undetected INNS are present upon the site or are introduced to the site during the works (despite the control measures in place to prevent this).*	
The spread of amphibian diseases to the site	**Amphibian diseases may be inadvertently brought onto the site from elsewhere.**	

from elsewhere	Amphibian diseases may be carried upon clothing, tools, tyres, machinery or plant. Amphibian populations, including breeding populations of great crested newts, are known to extend within 250m of the site. As such, in the absence of suitable control measures, it is **possible** that novel amphibian diseases will be brought onto the site from elsewhere, should any machinery or plant be brought to site where amphibian populations carrying such diseases are present. Accordingly, control measures will be put in place as a precautionary measure.	5. Used solution will be disposed of at the end of each day in accordance with the manufacturer's instructions. Prior to its disposal, the used solution will be run through a sieve or filter, to remove any solid matter, and the solid matter disposed per (4), above. 6. A named individual will assume responsibility for ensuring that the above control measures are implemented and adhered to, and a log kept demonstrating their implementation and adherence. This individual should provide a "toolbox talk" to all contractors working upon the site, prior to the commencement of works/their involvement, detailing their what they must do to ensure adherence with the above.
The spread of amphibian diseases from the site to elsewhere	**Amphibian diseases may be inadvertently taken elsewhere from the site.** Amphibian diseases may be carried upon clothing, tools, tyres, machinery or plant. Amphibian populations, including breeding populations of great crested newts, are known to extend within 250m of the site. As such, in the absence of suitable control measures, it is **possible** that amphibian diseases could be spread from the site to elsewhere. Accordingly, control measures will remain in place throughout the project.	

6 FIGURES



Figure 1: Pond 1.



Figure 2: Pond 2.



Figure 3: Pond 3.



Figure 4: Pond 4.

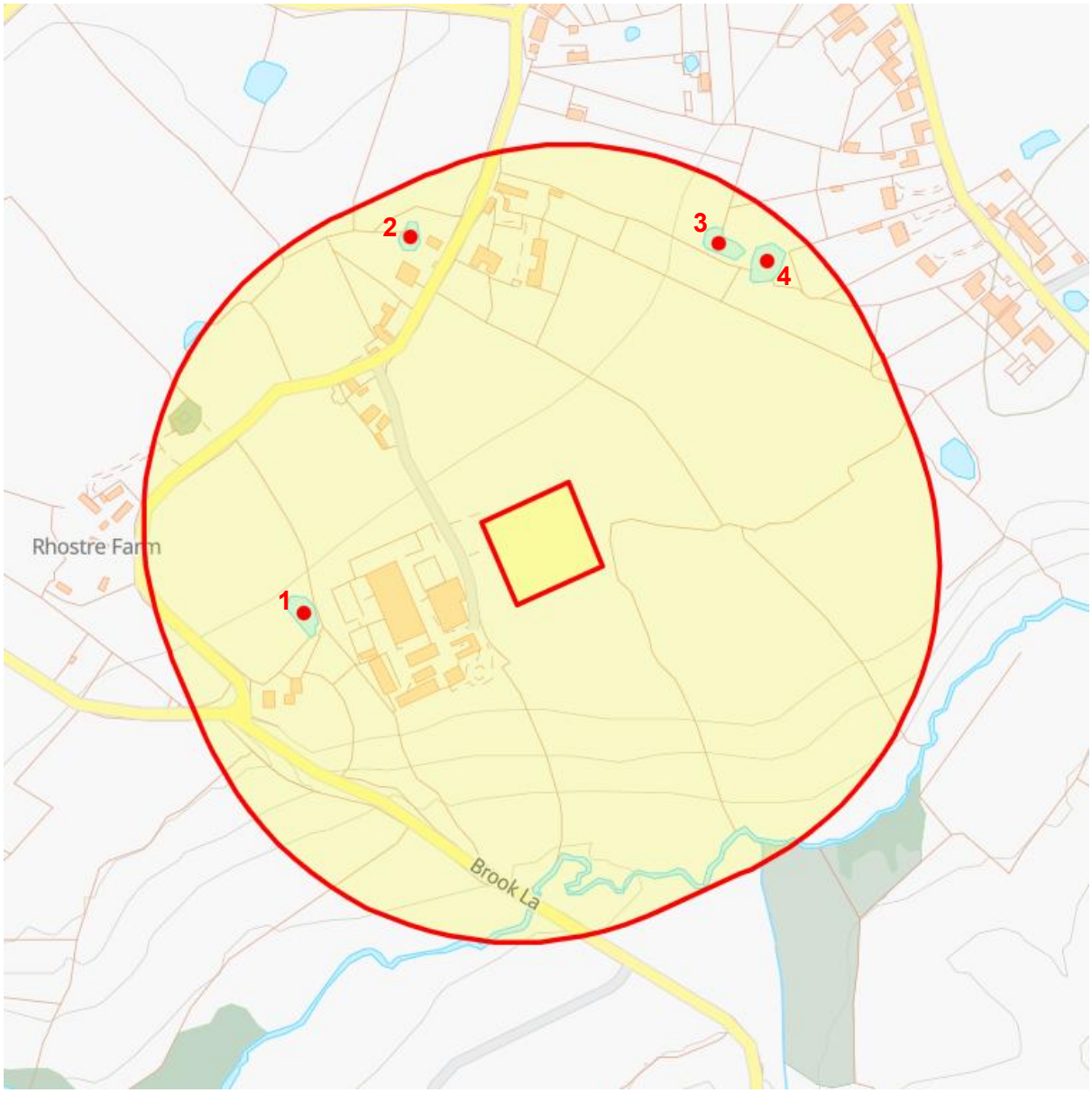


Figure 5: A 1:5,000 map view of the site and its surrounds, showing the relative position to each body of standing water within 250m of the site.

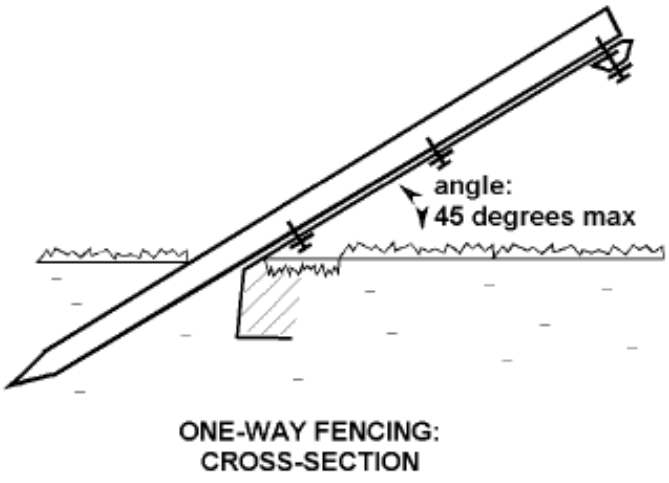


Figure 6: An example of the type of exclusion fence to be installed.