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GREAT CRESTED NEWT IMPACT ASSESSMENT

At

Lower Park Farm – Phase 2
Parkside
Rossett
Wrexham
LL12 0BN

NGR: SJ 38841 55091

Prepared for:	Rossett Park Farming c/o Hourigan Planning Ltd.
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	[redacted]
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EXECUTIVE SUMMARY

This report is written by Daniel Smith, Ecologist for United Environmental Services (UES) Ltd. It provides an assessment of the impacts on great crested newts (GCNs) *Triturus cristatus* as a result of the development at Lower Park Farm, Rossett. The development proposals include an extension to the existing car park, installation of a farm shop within a converted shipping container, outdoor seating area, and landscaping.

A GCN impact assessment was undertaken by UES on 30th October 2024. The objectives of the survey were to establish the suitability of the proposed development site for GCNs, to provide an assessment of the impacts of the development and establish if mitigation and compensation is required. All ponds and aquatic features on site and within 250m of the site boundary were assessed for their potential to support GCNs using the Habitat Suitability Index (HSI).

The development site is 0.12ha in size and is predominantly improved grassland with a small area of hardstanding along the eastern boundary, which will form the access point from the existing car park. A native hedgerow with mature trees runs along the northern boundary (outside of the development boundary).

The development site has limited potential to support GCNs; there are no aquatic habitats onsite, and the terrestrial habitats onsite are broadly unsuitable for GCNs. Two ponds are located within 250m of the proposed development site, which were assessed for their suitability to support GCNs using the habitat suitability index (HSI):

- Pond 1 achieved a score of 0.75 and is of good suitability for GCNs.
- Pond 2 achieved a score of 0.55 and is of below average suitability for GCNs.

Although Pond 1 has potential to support GCN, the habitats on site are of very low suitability to support amphibians as the site is dominated by species-poor modified grassland with a short sward. Given the small scale of the proposed works, type of habitat due to be impacted and the proposed construction techniques, it is considered unlikely GCN will be directly impacted by the development works. As such, the works may commence without the need for a European protected species mitigation licence from Natural Resources Wales.

Despite the poor-quality habitat and local conditions for GCN, there is potential for the proposed development site to support common amphibian species. As such, reasonable avoidance measures should be implemented during the construction phase of the development to reduce the potential for adverse impacts on common amphibian species. See section 5 for further details.

The report should be read in conjunction with appendices 1 to 5, which give visual representations of the survey results, and the preliminary ecological appraisal (PEA) also prepared for the site (UES04733/04).

1 INTRODUCTION

1.1 Author, surveyors and qualifications

This report is compiled and written by Daniel Smith BSc MScRes, UES Ecologist. Daniel is licensed by Natural Resources Wales to disturb, take and handle great crested newts under licence number S093616/1. Other surveyors present include Josh Howard BSc, UES Graduate Field Ecologist. Josh is licensed by Natural Resources Wales to disturb, take and handle great crested newts under licence number S094673/1.

All surveyors have the knowledge, skills and experience identified within CIEEM's "Competencies for Species Survey: Great Crested Newt" (2013).

1.2 Survey objectives

UES was commissioned by Rossett Park Farming to conduct site surveys which include the following activities:

- To assess the potential of the proposed development area for use by GCN
- Conduct an HSI assessment of ponds within 250m of site, where accessible
- Recommend further surveys, mitigation and compensation, where appropriate

1.3 Proposed development

The development proposals include an extension to the existing car park, installation of a farm shop within a converted shipping container, outdoor seating area, and landscaping.

1.4 Structure of the report

This report sets out the methodology, results, and recommendations in relation to a specific GCN survey. Recommendations are in line with statutory legislation and planning policy objectives.

The report should be read in conjunction with appendices 1 to 5, which give visual representations of the survey results. It should also be read in conjunction with the PEA also prepared for the site (UES04733/04).

2 METHODOLOGY

2.1 Desk study

Aerial photographs and Ordnance Survey maps were used to identify all waterbodies on the site and within a 250m radius of the site boundary.

UES has not been commissioned to undertake a protected species records search at this point.

2.2 Field survey

2.2.1 Habitat suitability index

A site visit was undertaken on 30th October 2024 by Josh Howard and Daniel Smith. All ponds and aquatic features on site and within 250m of the site boundary were assessed for their potential to support GCNs using the HSI. The HSI is a tool used to provide a numerical indication of the quality of a waterbody in terms of GCN breeding and associated habitat requirements on a scale of 0-1 (0 indicating unsuitable habitat, 1 representing optimal habitat).

HSI scores incorporate ten suitability indices (SIs), all of which are factors thought to affect GCNs, namely:

SI 1: Site location
SI 2: Size of pond
SI 3: Pond permanence
SI 4: Water quality
SI 5: Perimeter shading
SI 6: Waterfowl presence
SI 7: Fish presence
SI 8: Number of ponds within 1km
SI 9: Terrestrial habitat
SI 10: Macrophyte cover

In some cases, a net may be used to assess certain SIs, such as water quality. Once a measurement or category has been given for each SI this can then be converted to a figure between 0 and 1 for use in the HSI calculation. This figure is either translated from an assigned category or measurement or read from a graph in the case of a percentage or number.

The HSI is then calculated from the following formula:

$$HSI = (SI1 \times SI2 \times SI3 \times SI4 \times SI5 \times SI6 \times SI7 \times SI8 \times SI9 \times SI10)^{1/10}$$

This will give a final HSI result between 0 and 1, providing a measure of habitat suitability for GCN.

The information gathered from the survey was used to provide a likelihood of GCNs and other amphibians being present in the area, in both aquatic and terrestrial habitats.

The proposed development, based on the plans provided, was also assessed for the potential to cause harm to GCNs (if present) using the Natural England rapid risk assessment tool (an equivalent tool is not available in Wales).

All ponds were noted on the pond plan (Appendix 1).

2.3 Survey limitations

No limitations were encountered during the survey. Despite the survey being conducted in October, vegetation growth and invertebrate activity were sufficient to provide a robust assessment of aquatic habitats.

3 RESULTS

3.1 Terrestrial habitat assessment

3.1.1 The development site

The development site is 0.12ha in size and is predominantly improved grassland with a small area of hardstanding along the eastern boundary, which will form the access point from the existing car park. A native hedgerow with mature trees runs along the northern boundary (outside of the development boundary).

The development site has limited potential to support GCNs with the terrestrial habitats being broadly unsuitable for GCNs.

3.1.2 Surrounding habitats

The surrounding area primarily comprises hedgerow lined pasture fields. High quality habitats, such as hedgerows, woodland, scattered trees and waterbodies are also scattered throughout the wider landscape. These habitats have potential to support foraging, commuting and breeding GCN.

3.2 Aquatic habitat assessment

Two ponds were identified using aerial photographs and ordnance survey maps within a 250m radius of the development boundary.

3.2.1 Pond 1 - Grid reference: SJ 38673 54987

Pond 1 (Photograph 1) is located approximately 130m southwest of the development within a fenced off section of a pasture field onsite. The pond measures an approximate 885m^2. Emergent and marginal vegetation includes fools' watercress *Helosciadium nodiflorum*, yellow iris *Iris pseudacorus* and brooklime *Veronica beccabunga.* Bankside vegetation surrounding the pond includes rosebay willowherb *Chamaenerion angustifolium*, cocksfoot *Dactylis glomerata*, wood dock *Rumex sanguineus*, pedunculate oak *Quercus robur*, and goat willow *Salix caprea*.

3.2.2 Pond 2 - Grid reference: SJ 39003 55142

Pond 2 (Photograph 2) is situated approximately 120m east of the development boundary within a fenced off section of a pasture field offsite. The B5102 (Rossett Road) is located in between the pond and development boundary. The pond measures an approximate 1420m^2. Pond 2 is artificially stocked with fish to facilitate its use as a fishing pond. The pond's surface is dominated by waterlily *Nymphaea sp.* Marginal vegetation includes common reed *Phragmites australis* and hard rush *Juncus inflexus*. The bankside vegetation features species such as goat willow, stinging nettle *Urtica dioica*, common hogweed *Heracleum sphondylium*, broad-leaved dock *Rumex obtusifolius* and creeping bent *Agrostis stolonifera*.

4 IMPACT ASSESSMENT

4.1 HSI results

Two ponds within a 250m radius of the proposed development site were surveyed for their suitability to support breeding great crested newts using the habitat suitability index.

Pond 1 achieved a HSI score of 0.75, which indicates the pond is of 'good' suitability to support breeding GCNs. SIs which particularly increase the overall score include the number of ponds within the local area, macrophyte cover and pond permanence. SIs that particularly reduce the overall score include pond shade and the presence of fish.

Pond 2 achieved a HSI score of 0.55, which indicates the pond is 'below average' suitability to support breeding GCNs. SIs which particularly increase the overall score include the number of ponds within the local area, pond area and pond permanence. SIs that particularly reduce the overall score include pond shade and presence of fish.

Detailed scores and calculations are included in Appendix 4 – HSI results.

4.2 Impacts

The following rapid risk assessment tool has been developed by Natural England in order to establish whether it is necessary to apply for a licence. An equivalent tool is not available under National Resources Wales; however, the tool is considered to be transferable between countries. It should be noted that the tool assumes that the pond(s) identified during the site visit are suitable GCN breeding ponds, which in some cases will not be the case.

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)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.1
Rapid risk assessment result:	**GREEN: OFFENCE HIGHLY UNLIKELY**	

'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.'

Although Pond 1 has potential to support GCN, the habitats on site are of very low suitability to support amphibians as the site is dominated by species-poor modified grassland with a short sward. Given the small scale of the proposed works, type of habitat due to be impacted

and the proposed construction techniques, it is considered unlikely GCN will be directly impacted by the development works.

5 RECOMMENDATIONS

Although the presence of GCNs on site is considered to be unlikely, works on site should still be completed under the following reasonable avoidance measures, in order to safeguard other common amphibian species which may be present on site:

- The grassland is to be mown to have a sward length below 100mm. The sward length is to be reduced gradually in order to give any amphibians present time to move off site of their own accord. The mown area will then be maintained with a short sward until the works on site have been completed.

- Any potential hibernacula will be removed from the working area by a suitably experienced ecologist and placed in a suitable area close to site. Hibernacula could include piles of rubble, bricks, loose soil, debris, brash piles etc.

- No excavation works are anticipated to be undertaken during the development. Instead, the aggregate will be placed directly on top of the grass which will be cut prior to the application of the aggregate. However, if minor excavations occur, no excavations are to be left open overnight. If this is not feasible a plank should be left within the excavation at a 45° angle to allow amphibians to escape. Any open excavations should be checked for amphibians in the morning prior to start of works on site.

- Materials will be stored on pallets off the ground in order to reduce the risk of amphibians sheltering underneath them.

- The hedgerows and trees along the site boundaries will remain to continue to provide shelter and connectivity across site for amphibians and other fauna.

- UES will remain oncall throughout the development and if any great crested newts are encountered, work on site is to stop immediately and ecological advice is to be sought. UES can be contacted directly on 01565 757788.

6 CONCLUSION

The majority of the development site comprises grazed pasture, which is of limited value to GCN, and as such was prioritised for development. Whereas higher quality habitats, such as hedgerows and trees, were prioritised for retention and excluded from the development boundary.

There are no ponds onsite; however, two ponds were identified within 250m of the proposed development site:

- Pond 1 achieved a score of 'good' suitability to support breeding GCN
- Pond 2 achieved a score of 'below average' suitability to support breeding GCN

Given the small scale of the proposed works, type of habitat due to be impacted and the proposed construction techniques, it is considered unlikely GCN will be directly impacted by the development works and the works may commence without the need for a European protected species mitigation licence from Natural Resources Wales.

Despite the poor-quality habitat and local conditions for GCN, there is potential for the proposed development site to support common amphibian species. As such, reasonable avoidance measures should be implemented during the construction phase of the development to reduce the potential for adverse impacts on amphibian species.

Mitigation measures, as detailed in section 5 of this report, must be followed to ensure that the potential for detrimental impacts on common amphibian species is minimised.

7 REFERENCES

Anon. (2001). *Great Crested Newt Mitigation Guidelines.* English Nature.

Chartered Institute of Ecology and Environmental Management (2013). *Competencies for Species Survey: Great Crested Newts*.

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), Great Crested Newt Conservation Handbook, Froglife, Halesworth.

Welsh Government, 2024. Planning Policy Wales

APPENDICES

Appendix 1 – Pond plan

Pond Plan

Site: Lower Park Farm, Rossett
NGR: SJ 38828 55098
Author: Ben Cowell
Date: 30/06/2025





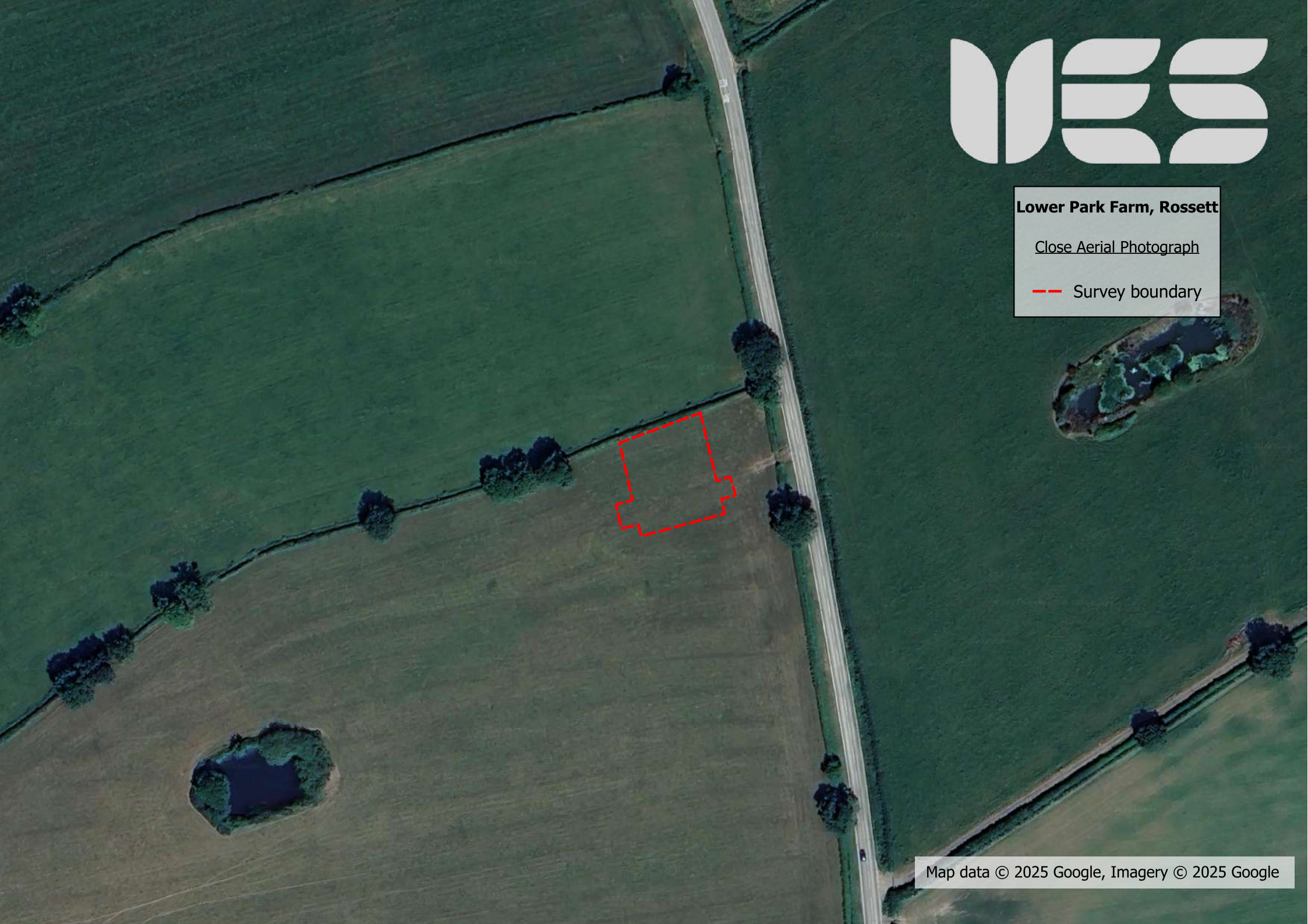
Key

- Pond
- Development boundary
- 250m boundary buffer

MAP DATA FROM ©2025 GOOGLE, IMAGERY FROM ©2025 GOOGLE

THIS PLAN IS ISSUED BY UNITED ENVIRONMENTAL SERVICES LTD SUBJECT TO THE CONDITION THAT IT IS NOT COPIED EITHER IN WHOLE OR IN PART OR DISCLOSED TO THIRD PARTIES UNLESS PRIOR WRITTEN AUTHORISATION IS GIVEN.

Appendix 2 – Aerial photographs


Lower Park Farm, Rossett
Close Aerial Photograph
Survey boundary
Map data © 2025 Google, Imagery © 2025 Google


Lower Park Farm, Rossett
Wide Aerial Photograph
Site Location
Map data © 2025 Google, Imagery © 2025 Google

Appendix 3 – Photographs



Photograph 1 – Pond 1.



Photograph 2 – Pond 2.

Appendix 4 – HSI results

GCN HSI Calculations

SI number	Pond number	1	2
	Grid reference	SJ 38673 54987	SJ 39003 55142
	SI description	SI Values	
1	Geographic location	1	1
2	Pond area	0.95	0.9
3	Pond permanence	1	1
4	Water quality	0.67	0.67
5	Shade	0.2	0.4
6	Water fowl	0.67	0.67
7	Fish	0.67	0.01
8	Pond density	1	1
9	Terrestrial habitat	0.67	0.67
10	Macrophyte cover	1	1
HSI score:		**0.75**	**0.55**
Pond suitability:		**Good**	**Below average**

HSI Score	Pond Suitability
< 0.50	Poor
0.50 - 0.59	Below average
0.60 - 0.69	Average
0.70 - 0.79	Good
> 0.80	Excellent

Appendix 5 – Statutory and planning context

STATUTORY AND PLANNING CONTEXT

Ecological assessments

Ecological assessments play an important part within the planning context; they include an initial assessment which highlights any specific interests of a site. From the initial site assessment, the surveyor assesses the suitability of habitats within the site to support protected species and makes recommendations for further survey works if required. The following paragraphs provide a brief interpretation of the legislative protection that is relevant to the findings of this report.

Habitats

Section 7 of the Environment Act (Wales) places a duty on Welsh Ministers to publish, review and revise lists of types of habitats and species in Wales which they consider are of key significance to sustain and improve biodiversity. The Welsh Ministers must also take all reasonable steps to maintain and enhance the habitats published in these lists, and encourage others to take such steps.

Amphibians

Great crested newts

Great crested newts (GCN) *Triturus cristatus* and their habitat (aquatic and terrestrial) are afforded full protection by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture GCN
- Deliberately, intentionally or recklessly disturb GCN in such a way to be likely to significantly affect:
- their ability to survive, breed, reproduce, rear or nurture their young
- their ability to hibernate or migrate
- their local distribution or abundance
- Deliberately, intentionally or recklessly take or destroy the eggs of GCN
- Damage or destroy breeding sites or resting places of GCN
- Intentionally or recklessly disturb sheltering GCN, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead GCN, any part of GCN or anything derived from GCN

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

GCN are also protected by the Protection of Animals Act 1911, which prohibits cruelty and mistreatment. Releasing a GCN in such a way as to cause undue suffering may be an offence under the Abandonment of Animals Act 1960.

In addition to the above, there are various statutory provisions relating to the transport of animals, designed to ensure their welfare. GCN are also listed under Section 7 of the Environment (Wales) Act 2016.

It is important to identify the presence of GCN individuals and also to identify suitable habitat on sites so that legal obligations regarding this species can be observed. If a survey identifies the presence of GCN on the site, an assessment of the population size class is required. This can then inform a mitigation scheme, which would need to be developed in liaison with the local Natural Resources Wales (NRW) team, and which minimises direct threats to newts and compensates for any loss of habitat. A licence issued by NRW is required for the legal implementation of a mitigation scheme.

An NRW mitigation licence application requires a Mitigation Method Statement and a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

Other amphibians

More common British amphibians, such as common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Triturus vulgaris* and palmate newt *Triturus helveticus* are protected only by Section 9(5) of the Wildlife and Countryside Act 1981 (as amended). This section prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy.

The above named species are also listed as UK Species of Conservation Concern. Due to general declines in most British amphibian species in recent years, many local authorities require amphibian surveys as a planning condition, or as part of environmental information submitted as part of a planning application, even where the presence of GCN is ruled out.

Natterjack toad *Bufo calamita* and pool frog *Pelophylax lessonae* are also offered the same level of protection as GCN, through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017.

Natterjack and common toad are also listed under Section 7 of the Environment (Wales) Act 2016.

Water bodies that support all five (more common) species of British amphibians in high numbers, may be afforded protection in local plans, as Sites of Importance for Nature Conservation (SINC), or a similar equivalent, for sites of local importance. A site may require statutory protection as a Site of Special Scientific Interest (SSSI).

Planning Policy

National planning guidance is issued in the form of Planning Policy Wales (PPW - 2024). The most relevant sections are included in Chapter 6: Distinctive and Natural Places. This chapter details the policies on issues such as the protection of trees, woodlands, species, and designated sites. The document is free and available to view online.