



Kingdom Ecology

7 Speke Road, Woolton
Liverpool, L25 8QA



077 998 44249

enquiries@kingdomecology.com

www.kingdomecology.com

Company No 07524016

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To whom it may concern,

**Land to the North and South of Lane Farm, Rossett Road, Rossett, LL12
0DS- Ecology Update Addendum**

Planning Reference- P/2019/0460

Introduction

Kingdom Ecology have previously carried out an ecological assessment of an area of agricultural land located to the North and South of Lane Farm, Rossett Road, Rossett.

An initial Phase 1 habitat survey of the site was originally undertaken on the 16th February 2015. Further surveys, comprising of a great crested newt presence/absence assessment of a pond located 260m to the east of the site and a suite of bat activity surveys, were carried out from May to June 2016.

The full findings of these previous surveys can be found within the Kingdom Ecology Report- '*Holt Road, Rossett, Ecological Assessment*' dated 23rd November 2016.

As the surveys associated with this report are now over three years old, an update site ecological site visit has been undertaken including a site walkover, badger survey and a single set of nocturnal bat activity surveys. These update surveys were completed on the 12th and 13th August 2019. The update assessment has also considered new survey information concerning great crested newt associated with two ponds located 260m and 400m to the east of the site.

The purpose of the update surveys/assessment is to determine whether the findings and recommendations of the previous 2015/2016 assessment are likely to remain appropriate and to make further recommendations where considered necessary.

Surveys completed in 2015, 2016 and 2019 have all been carried out by Richard Roe (BSc, MSc, MIEEM, CEnv). Richard has extensive experience of undertaking habitat and protected species surveys as a professional ecological consultant with over eighteen years' experience. Richard is also a licensed great crested newt and bat worker.

2019 Survey Methods

Survey completed in 2019 has comprised of:-

- 1) An update daytime, ecological walkover assessment of the site to determine whether there has been any significant change to habitats present and to search for evidence of any other protected species including badgers. This survey was completed on the 13th August 2019.
- 2) An update bat survey comprising of a repeat walk of the transect routes assessed in 2016. Survey followed the same methodology as previous with the transect route interspaced by seven 'listening station' stops or 'point counts', where the surveyor would pause for four minutes to record levels of bat activity, including the number and species of bat, number of bat passes (discrete bursts of echolocation) of each species, and activity types i.e. commuting, foraging and/or social calling.

The transect route was walked twice during the survey visit allowing sampling of bat activity both immediately following sunset and also later in the same evening. Full methodologies can be found within the previous Ecological Assessment Report for the site. The surveyor was equipped with an Anabat Walkabout Bat Detector. Survey was completed on the 12th August 2019. The transect survey aimed to determine whether there were any significant changes to levels or types of bat activity since the previous surveys were undertaken.

- 3) A re-appraisal of the likely status of great crested newt at the Application Site. This assessment was based upon a review of data associated with another planning application of Gamford Farm located to the east of the site and a daytime visit to the site. This assessment considered the presence of GCN breeding ponds in the wider landscape, their distance from the Application Site, terrestrial habitats around breeding ponds, at the Application Site and in the wider landscape and habitat linkages between breeding ponds and the Application Site.

2019 Survey Results

Ecological Walkover Survey

The update August 2019 walkover survey has found habitats at the site to be fundamentally the same as previous. The north field comprises of improved pasture comprising of abundant Yorkshire fog and perennial ryegrass with occasional cock's foot, soft brome, cow parsley, broadleaved dock and nettle.

The southern field comprises of arable land and was planted with maize at the time of survey.

Field boundaries are the same as previously recorded comprising of species-poor hedgerows and fence lines.

The hedgerows and individual trees are considered to be the features of greatest value at the site as they are likely to offer suitable refuge and foraging habitat for birds and other wildlife.

No evidence of badger was recorded at the site or within immediate adjacent habitats.

Conclusions with regards to habitats and badgers as described within the previous Ecological Assessment are considered to remain appropriate.

Updated photographs of the site are provided in the Appendix.

Update Bat Transect Survey

The update bat transect was undertaken on the 12th August. Weather was recorded as mostly dry, calm and overcast with temperatures of 13°C. Short spells of light drizzle were recorded between 20.40 and 20.45 and between 21.35 and 21.39. Sunset was recorded at 20.45.

As previously, the activity surveys identified the site as supporting relatively low numbers of foraging common pipistrelle and soprano pipistrelle bat.

Overall, the surveys recorded relatively low levels of bat activity with bats principally encountered foraging along hedgerows associated with the site's boundary features. The areas of greatest bat activity were located along the hedgerow at the eastern boundary of the north field and along the Harwood's Lane which runs along the southern boundary of the site. Bats were identified arriving at the site from the west (from Rossett village).

The open grassland and arable habitats are considered to be of negligible value with limited bat activity recorded in these areas away from the hedgerows.

These survey results show no significant change in levels or types of bat activity at the site between the 2016 and 2019 surveys.

The 2019 survey results are presented in the Appendix adjacent to the findings of the 2016 survey results to allow comparison.

Great Crested Newt

The 2016 surveys included a great crested newt (GCN) presence/absence survey of Pond 1 (see Figure 1) using eDNA survey techniques. Pond 1 is located approximately 260m to the east of the site. The 2016 survey returned a 'negative' result for GCN eDNA.

More recent GCN surveys have been undertaken of Pond 1 plus a further pond (Pond 2) which is located 400m to the northeast of the site adjacent to Gamford Farm (see Planning Application P/2019/0246- Tyrer Ecological Consultants Report- '*Gamford Farm, GCN Presence/Absence Survey Results*').

These latest surveys were completed in Spring 2019 and recorded 'low' numbers of GCN within Pond 1 (maximum of 2 newts captured) and recorded a 'moderate' number of GCN within Pond 2.

The original 2016 surveys may not have detected GCN within Pond 1 as there were no newts in the pond at the time or as GCN were present in such low densities, that they avoided detection. Taken in combination, the finding so the 2016 and 2019 surveys suggest a very low number of GCN within Pond 1.

Terrestrial habitats around Gamford Farm were viewed from the adjacent road on the 13th August 2019 by the Kingdom Ecology surveyor. Terrestrial habitats around Pond 2 and the derelict Gamford Farm are considered to be of high value for great crested newt comprising of areas of bramble scrub, tall herb, rough grassland, broken hardstanding and rubble.

Habitats around Pond 1 are considered to be of a lesser value and comprise of grazed improved pasture. Intervening habitats between the Application Site and the two ponds around Gamford Farm comprise of further, grazed improved pasture. Gamford Lane is also located between Pond 2 and the Application site.

The GCN recorded within Pond 1 and Pond 2 are likely to be part of the same population but terrestrial habitats around Pond 2 are of much higher quality to habitats around Pond 1, to habitats within the Application Site or to intervening habitats. Consequently, the GCN population is very likely to be centred around Pond 2 and its associated high quality terrestrial habitats (i.e. core habitat areas located approximately 350-400m away from the Application Site).

Given the distance of likely GCN core habitats from the Application Site and considering the low quality of intervening habitats and habitats within the Application Site itself, it is considered to be very unlikely that great crested newt are present within habitats at the Application Site in any significant numbers.

Nevertheless, as an added precaution, it is recommended that a statement of Reasonable Avoidance Measures (RAMs) for GCN is produced for the site to further reduce the risk of harm to newts during site clearance. The RAMs should just focus on habitats to the north of Rossett Road. Arable habitats to the south of the road are of minimal value to GCN and are further isolated from Ponds 1 and 2 by distance and by the intervening Rossett Road.

Given the low risk of GCN presence at the site, a full European Protected Species License and any intensive programme of great crested newt fencing and trapping not to be appropriate.

Precautionary measures described within the RAMs should include:-

- The grassland habitats to the north of Rossett Road should be kept tidy and free from piles of debris, logs, stones, spoil, or construction materials. This is so that there are no features in which Amphibians will seek shelter.
- The grassland itself should be maintained at a low height (sward no greater than 7cm in height) with regular mowing/grazing. This should be carried out to reduce the suitability of habitats for Amphibians within the proposed works area.
- Any works to remove lengths of hedgerow should be preceded by a hand search for GCN to be undertaken by an appropriately licensed ecologist.
- Where construction materials are brought onto site for use in the development, all such materials should be stored on pallets or in skips, so that they are elevated off the ground and do not create new features beneath which Amphibians can take shelter.

- Where new trenches are to be excavated, these should not be left open overnight in case dispersing amphibians fall into them. Where this is not possible, trenches should be fitted with wooden ramps to allow wildlife to escape.
- If a newt of any type is identified during works, works should immediately stop and advice sought from a licensed great crested newt worker.

Summary and Conclusions

Update ecological field surveys have been undertaken at the site comprising of an ecological walkover, badger survey and a single set of dusk bat activity surveys. These update surveys were completed on the 12th and 13th August 2019.

An update to the likely status of great crested newt within the wider landscape and at the site itself has also been provided, taking into account Tyrer Ecological Consultancy's recent surveys of Gamford Farm which assessed two ponds located 260m and 400m from the Application Site.

Other than a revision to the status of GCN within the two ponds and the updated recommendations to provide and follow a precautionary great crested newt RAMs as part of the site construction, the findings of the 2015 and 2016 site assessments are still considered to be representative of the current ecological status of the site and there are no other alterations to the ecological recommendations previously provided.

Yours sincerely



Richard Roe BSc Msc CIEEM CEnv

Principal Ecologist

Figure 1- Study Site Location



Table 1- Bat Activity Survey Results 2019

Point Count	Habitat	Species	2016 Average No. of bat passes	2016 Activity Index	13 th August 2019, Number of Bat Passes	
					1st Circuit 20.50-21.46	2 nd Circuit 21.47- 22.45
1	Hedge, grassland & gardens	P55	0	Low	3	1
2	Hedge, grassland & gardens	P55	2.2	Low	3	2
3	Hedge, mature trees and grassland	P45, P55	1.8	Low	0	2
4	Hedge, mature trees and grassland	P45 & P55	5.4	Moderate	0	6
5	Hedge, road, and arable	P45 & P55	1	Low	3	1

**Land at Rossett Road
Ecology Update Addendum**



Point Count	Habitat	Species	2016 Average No. of bat passes	2016 Activity Index	13 th August 2019, Number of Bat Passes	
					1st Circuit 20.50-21.46	2 nd Circuit 21.47- 22.45
6	Hedge and arable	P45, P55	2.4	Low	1	1
7	Hedge, road, and arable	P45	2.6	Low	5	5

Photograph 1- North Field



Photograph 2- South Field

