



**Field House, Maggotts End, Manuden, CM23 1BJ**

**Ecological Impact Assessment – Addendum**

**Planning Application Ref. UTT/23/2743/HHF**

Author: Dr Matthew Denny MCIEEM

December 2023

## Introduction

Since completing the original ecological impact assessment, the proposed development works have changed. The original proposal was summarised thus:

*Make some internal alterations to the house including a small extension, convert the double garage, construct a new three bay cart-shed and a new pool building. None of the roof spaces and no trees will be directly impacted.*

The proposals now include an additional two-storey extension to the house, a new balcony, a new workshop extension to the rear of the existing garage, and a larger footprint to the new pool building. These new plans form the basis of planning application UTT/23/2743/HHF, validated on 3<sup>rd</sup> November 2023, and described thus:

*Proposed two bay cartshed, rear extension to existing garage and new pool building. Replacement balcony to existing dwelling, rear two storey and rear single storey extensions*

The ecological team at Place Services, on behalf of the LPA, have responded to the planning application by stating that:

*An updated ecological assessment should be undertaken to assess all of the potential impacts to protected and Priority species and habitats, particularly bats given areas of roof will be impacts (sic) and Great Crested Newt given the close proximity of a pond and impacts to surrounding habitats.*

The predicted ecological implications of each possible protected species receptor (roosting bats, nesting birds and great crested newts (GCNs)) is assessed in turn, but each element of work and its predicted impact on these receptors is summarised in Table 1, which forms a decision framework matrix.

**Table 1. Decision framework matrix for each element of work proposed**

Proposed work	Footprint	Distance from pond	Habitats	Ecological receptor	Presence & risk
Kitchen extension	7m <sup>2</sup>	60m	Closely fitting paving slabs	Bat roost	Negligible
				GCN	Negligible
				Nesting birds	Negligible
Grass west of house	40m <sup>2</sup>	50m	Mown amenity lawn	GCN	Negligible
Shrubs west of house	12m <sup>2</sup>	50m	Ornamental shrubs	GCN	Unlikely
				Nesting birds	Moderate
2-story house extension	11m <sup>2</sup>	50m	Closely fitting paving slabs	Bat roost	Negligible
				GCN	Negligible
				Nesting birds	Negligible
Replacement balcony	N/A	N/A	N/A	Bat roost	Negligible
				Nesting birds	Negligible
Pool house + patio	105m <sup>2</sup>	20m	60m <sup>2</sup> ornamental shrubs + 45m <sup>2</sup> mown lawn	GCN	Unlikely
				Nesting birds	Moderate
Garage workshop extension	15m <sup>2</sup>	8m	8m <sup>2</sup> shed + 5m <sup>2</sup> paving slabs + 2m <sup>2</sup> ornamental shrubs	Bat roost	Negligible
				GCN	Unlikely
				Nesting birds	Unlikely
New cartshed	39m <sup>2</sup>	9m	Mown amenity lawn	GCN	Unlikely

## Bats

The house, garage (with lean-to shed) and existing pool shed, were all inspected internally and externally for bat roost potential following methods detailed in the guidelines current at the time of survey (Collins et al. 2016). As detailed in the PEA report, the only potential bat roosting features were on the south side of the house where the soffit boards have come away from the wall in places, resulting in narrow (1-2cm) gaps which could allow access into the soffit boxes. However, this part of the house will not be impacted by the proposed works. No evidence of bats, such as droppings on external walls, were found, despite a search of the roof space, and all external walls being pale pink allowing such evidence to be easily located. Note that the weather at the time was dry and warm, with no recent rain, coinciding with a September heatwave. Therefore, rain would not have washed away external bat evidence for several weeks.

Areas of the house, garage and buildings that will be impacted are as follows:

- the roof of the north aspect of the southwest kitchen area – this area has a new roof with tight fitting tiles and no bat roost potential (Photo 1).
- the walls and eaves areas of a section of the northwest elevation of the house where the new 2-storey extension is proposed – this area has tight-fitting fascia boards and roof tiles (although note that the roof will not be directly impacted), and a wooden shed, all of which support negligible bat roosting potential (Photo 2).
- Existing balcony and surrounding wall of north elevation – this area has no bat roosting potential (Photo 3)
- the north elevation of the garage – this area has tight-fitting fascia boards and roof tiles (although note that the roof will not be directly impacted), and a wooden shed, all of which support negligible bat roosting potential (Photo 4).
- the existing pool shed which has negligible bat roosting potential (Photo 5).

## Nesting birds

The areas of shrubs to be impacted to the north of the swimming pool and west of the house (east of the tennis court), where they will be removed to facilitate development of paved patio, paths and the new pool house, all have moderate potential to support nesting birds. Therefore, appropriate timing (September-February inclusive) of these shrubs is recommended to avoid the nesting bird season. If the nesting bird season cannot be avoided, a bird-nesting survey should be undertaken prior to shrub clearance, to ensure no active birds' nests will be damaged or destroyed.

No evidence of, or potential for nesting birds was recorded in or on any of the buildings during the building inspection survey. The gaps in the south elevation soffits were considered too narrow for likely nesting species, such as house sparrows, to access.

The areas of hardstanding gravel and mown lawn to be impacted are all unsuitable for nesting birds.

## Great crested newts

It is not known whether the pond on site supports great crested newts (GCNs). An HSI survey (Oldham et al. 2000) of the pond showed it has 'good' suitability to support GCNs. However, inspections of historical Google aerial images show it was created between 2004 and 2006 (see Figure 1 for relevant images), when the curtilage of the property was extended onto arable farmland to the north. Therefore, the pond is approximately 18 years old, and would rely on dispersal of GCNs from nearby breeding ponds over that time to colonise and form a breeding population. Cresswell and Whitworth (2004) and Müllner (2001) found that GCNs rarely disperse further than 100m from their breeding pond, but occasionally disperse further.

The accepted maximum dispersal distance is 250m, demonstrated for example by Natural England's approach to District Licensing schemes, where only ponds within 250m are incorporated into the DL calculation. As detailed in the PEA report, the only other two ponds within 250m of the site are both heavily shaded and unlikely to be suitable for GCNs, and certainly not for anything greater than a small population. We therefore conclude that despite the on-site pond being suitable for GCNs, it is unlikely that it has been colonised by dispersing GCNs since its creation.

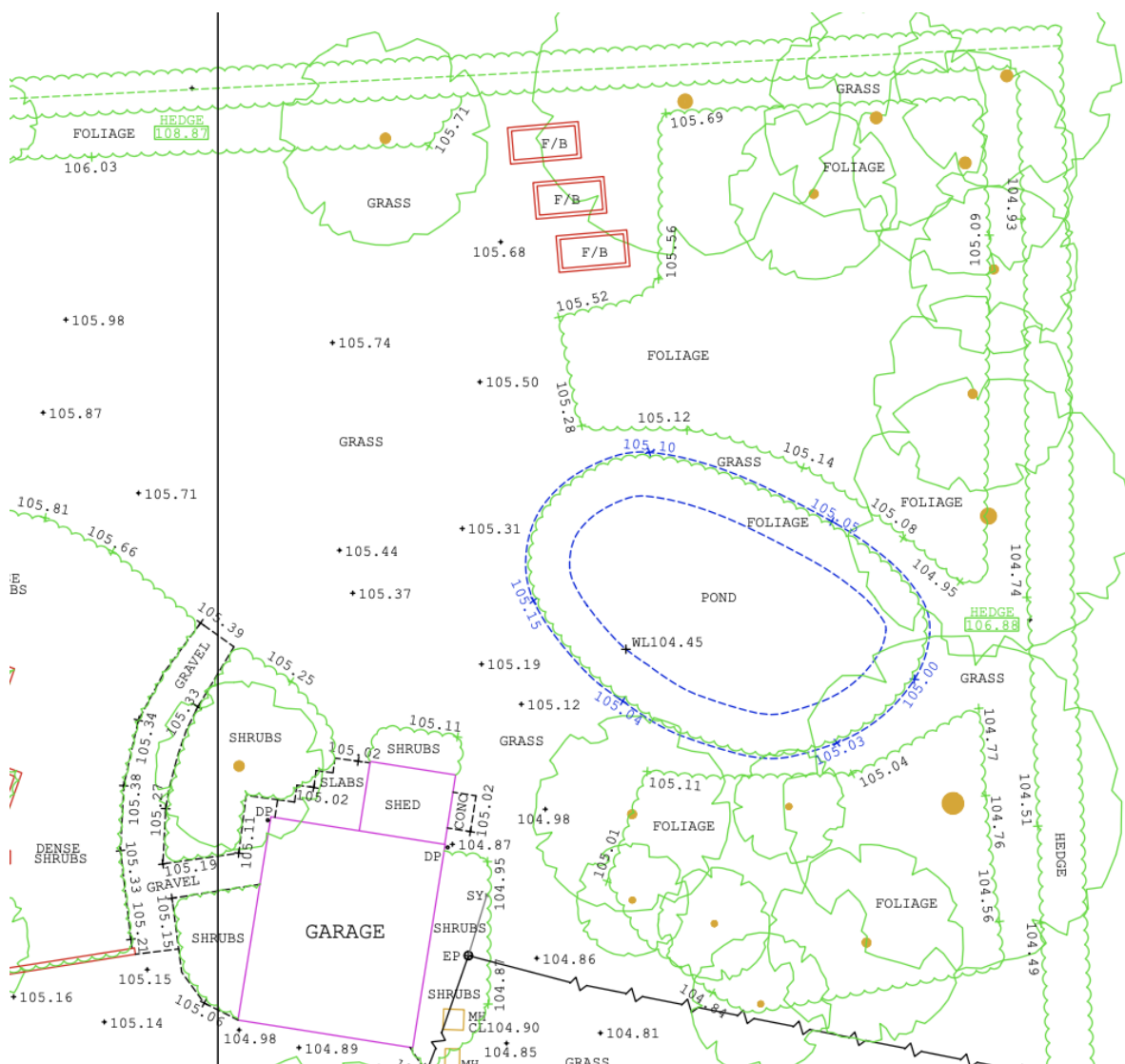
**Figure 1. Google aerial images from 2004 and 2006, showing creation of the on-site pond over the intervening period. Pond location is ringed blue**



In the unlikely event that the on-site pond does support GCNs, we believe there is a low risk they will routinely disperse to terrestrial habitats to be impacted by the proposed development, for the following reasons.

Müllner (2001) found that GCNs prefer to use suitable terrestrial habitat when available, such as woodland, rough grassland and hedgerows, within a zone of up to 50 metres from breeding ponds, but with highest densities closest to the breeding pond. The immediate zone around the pond on site is shown in Figure 2 (extract of the Topographical survey). This zone comprises rough (unmown) neutral grassland immediately surrounding the pond, and to the north and south (marked as foliage in Figure 2, with scattered trees, with the thick, native hedgerows immediately beyond, forming the east and north site boundaries (4.5m and 14.5m from the pond respectively)) (Photos 6 & 7). None of these optimal GCN habitats will be impacted by the development, and would provide ideal terrestrial habitat and cover for GCNs when dispersing to/from the pond if they are present.

**Figure 2. Northeast section of the site taken from the Topographical survey, showing the areas of rough grassland (foliage), trees and hedgerows immediately surrounding the pond**



All work within 20m of the pond will be on either tightly mown amenity grassland lawn (cartshed) (Photo 7) or hardstanding and a 2m area of bare ground beneath a shrub (garage extension), all of which are unsuitable for GCNs. As detailed in the PEA report, the cartshed will not impede dispersal of GCNs to or from the pond. Work between 20-50m with potential to impact GCNs (the balcony will not) will be the new pool building and associated new areas of paved patio. The footprint of this element of the proposed development will cover 115m<sup>2</sup> of which 60m<sup>2</sup> is existing tightly mown grass lawn and 45m<sup>2</sup> is existing well-managed ornamental shrubs (Photo 8). Between this area and the pond is 20m of open, closely mown grass lawn (Photo 6), unsuitable for GCNs, which will discourage their dispersal in the direction of the work, particularly when habitats in other directions immediately surrounding the pond are ideal for GCN dispersal.

The proposed 2-storey and kitchen extensions footprints will impact only close-fitting paved hardstanding, unsuitable for GCNs. However, new paved patio and footpath areas to the west of the house include a footprint of 40m<sup>2</sup> of mown grassland and 12m<sup>2</sup> of well-managed ornamental shrubs. Whilst the former provide negligible GCN potential, the latter has some very low potential, albeit over 50m from the pond. Therefore, we recommend this area of shr

To conclude, GCNs are unlikely to be present in the pond, but that if they are, none of the work will pose any more than a very low risk to the species and we predict no likely significant impacts on GCNs. However, as there are small areas of suitable GCN habitat within the proposed development impact zone, we recommend works proceed in these areas using non-licensable reasonable avoidance measures (RAMS). Precautionary working methods will be employed to ensure no GCNs are killed or injured, and to ensure suitable mitigatory action is taken should one be discovered during work. In particular, the areas of shrubs should be removed carefully by hand, under ECoW supervision and following a finger-tip search.

To provide enhancement for GCNs, should they be present in the pond (and/or for other semi-aquatic species such as other amphibian species), 200m<sup>2</sup> of existing mown lawn to the west and southwest of the pond will be allowed to develop into rough neutral grassland ideal for GCNs.

## References

Collins, J (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edition)

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 Triturus cristatus*. English Nature Research Reports Number 576

Müllner, A. (2001). Spatial patterns of migrating Great Crested Newts and Smooth Newts: The importance of the terrestrial habitat surrounding the breeding pond *RANA Sonderheft 4*

## Photos



Photo 1. Rear of house (southwest section) showing kitchen area to be extended (wall with French doors and roof above). Note relatively new roof tiles in immaculate condition and closely fitting paving slabs.



Photo 2. Northwest section of the house showing the walls and soffit boxes in the location of the proposed 2-storey extension. Note tight soffits and walls with no gaps or potential bat roost features.



Photo 3. Balcony on north elevation to be replaced



Photo 4. Garage from the northeast, showing north elevation with lean-to shed and tight-fitting soffit and fascia boards and roof tiles



Photo 5. Existing pool house (shed)



Photo 6. Pond taken from east, showing tall marginal vegetation and tightly mown lawn beyond, in direction of proposed pool house



Photo 7. Area of mown lawn in the location of the proposed cartshed, showing the trees and rough grassland surrounding the pond in the background



Photo 8. Mown lawn area with shrubs to north of swimming pool showing the location of the proposed new pool building