

HopkinsEcology

Site: Land West of Mill Lane Hatfield Heath

Item: Ecology Verification 2021:
Addendum to the Ecological
Impact Assessment

Client: Mr D Sargeant

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Date: 04 October 2021

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Executive Summary

Hopkins Ecology Ltd have been appointed by Mr D Sargeant to prepare a verification survey and assessment of an existing Ecological Impact Assessment (EclA) relating to the Land West of Mill Lane, Hatfield Heath (the 'Site'). A residential scheme is proposed.

The field surveys for the EclA were undertaken in 2016-17. This report addresses the validity of the existing information and updates survey work as required (i.e. for great crested newts). This report is not intended to replace the existing EclA, but to determine its continuing robustness in terms of the baseline description, mitigation and assessment of impacts.

The on-Site and boundary habitats and vegetation are broadly unchanged from that described in the EclA. The species surveys and scoping likewise is considered to be unchanged from the EclA, and of noted is:

- Great crested newts continue to be present as a small population.
- Bat roosts are scoped out based on a visual inspection and roost appraisal. The buildings lack potential roost features

In terms of the evaluation of features and species, there are some differences in opinion from the EclA, specifically:

- The woodland is not considered to be a priority habitat. As interpreted, the criteria for the priority habitat include a 'semi-naturel' origin, which is believed to be based on being of pre-1901 in origin.
- The great crested newts and barn owls are considered to be of local importance. Other assigned values are unchanged.

The assessment of impacts and required mitigation measures as presented in the EclA are considered robust. The overall assessment of residual impacts are also considered robust, and are as follows:

- Minor positive impacts: Habitats, bats and breeding birds
- Negligible impacts: Great crested newts, and barn owls

In summary, it is considered that the EclA and supporting reports continue to be valid and robust.

1. Introduction

BACKGROUND

- 1.1 Hopkins Ecology Ltd have been appointed by Mr D Sargeant to prepare a verification survey and assessment of an existing Ecological Impact Assessment (EclA) relating to the Land West of Mill Lane, Hatfield Heath (the 'Site'). A residential scheme is proposed.
- 1.2 The field surveys for the EclA were undertaken in 2016-17, and following the guidance from the Chartered Institute of Ecology and Environmental Management¹ this report addresses the validity of the existing information and updates survey work as required (i.e. for great crested newts). This report is not intended to replace the existing EclA, but to determine its continuing robustness in terms of the baseline description, mitigation and assessment of impacts.
- 1.3 The existing EclA² includes:
 - A habitat description and protected species scoping based on surveys in 2016.
 - Great crested newt surveys in 2017³.
 - A bat roost assessment undertaken in 2016⁴.

SITE CONTEXT AND STATUS

- 1.4 The site currently consists of some previously developed land, a wooded area and an egg packaging and distribution business.

LEGISLATION AND PLANNING POLICY

- 1.5 This verification considers the existing information in the context of relevant legislation and planning policies. The following key pieces of nature conservation legislation are relevant to legally protected species (with a more detailed description in Appendix 2):
 - The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations); and
 - The Wildlife and Countryside Act, 1981 (as amended).
- 1.6 Also, the National Planning Policy Framework (MHCLG, 2021⁵) requires local authorities to avoid and minimise impacts on biodiversity and, where possible, to provide net gains in biodiversity when making planning decisions. A large number of species are of conservation concern in the UK. A small number of these species are fully protected under the legislation listed above, but others in England are recognised as Species of Principal Importance under the Natural Environment and Rural Communities Act 2006 and reinforced by the National Planning Policy Framework. For these species local planning authorities are required to

¹ CIEEM (2019) *Advice Note on the Lifespan of Ecological Reports and Surveys (April 2019)*. Available from: [REDACTED]

² The Ecology Partnership (2017) *Land West of Mill Lane, Hatfield Heath. Ecological Impact Assessment*. Unpublished report to Mr D Sargeant.

³ The Ecology Partnership (2017) *Great Crested Newt Survey 2017. Land West of Mill Lane, Hatfield Heath*. Unpublished report to Mr D Sargeant.

⁴ Robert Stebbings Consultancy (2016) *Land West of Mill Lane, Hatfield Heath. Assessment of Bats*. Unpublished report to Mr D Sargeant.

⁵ MHCLG (2021) *National Planning Policy Framework for England*. Ministry for Housing, Communities and Local Government, London.

promote the “*protection and recovery*” via planning and development control. Examples include the widespread reptiles, linnets, soprano pipistrelle and brown long-eared bats.

- 1.7 Although the NPPF has an overarching aim of minimising impacts to biodiversity, the majority of species of conservation concern are not specifically recognised by legislation or planning policy. The level of protection afforded to these is undefined and should be considered within the overall aim of minimising impacts on biodiversity.

2. Methods

- 2.1 A Site walkover was undertaken on 13 May 2021 by Dr Graham Hopkins FRES CEnv MCIEEM. He is an experienced field ecologist with over 15 years' consultancy experience, and holds full survey licences for great crested newts and bats. He also has particular expertise in invertebrate ecology.
- 2.2 The field survey comprised a walkover along the Site boundaries and other relevant areas nearby with access. This included searches for any evidence of protected species (which in practice was signs of badgers), and also a broad vegetation description in accordance with JNCC (2010)⁶. The inspection of buildings for bat roost potential was undertaken in accordance with Bat Conservation Trust guidance (Collins, 2016⁷).
- 2.3 Surveys for great crested newts were undertaken as described in Appendix 2 (with E-DNA testing on 13 May 2021).

CONSTRAINTS

- 2.4 It is not considered that there are any significant limitations to the assessment as described, and the work comprises a robust verification of the EcIA.

⁶ JNCC (2010) *Handbook for Phase 1 Habitat Surveys*. Joint Nature Conservation Committee, Peterborough.

⁷ Collins, J. (2016). *Bat Surveys for Professional Ecologists*. Bat Conservation Trust, London.

3. Designated Sites

OVERVIEW

- 3.1 The designated sites locally are believed unchanged from that reported in the EclA:
- The nearest statutory site is Hatfield Forest Site of Special Scientific Interest (SSSI) and National Nature Reserve. This is located 1.6km not the north.
 - The nearest Local Wildlife Site is 340m (Ufd84 Hatfield Heath Local Wildlife Site), and the next nearest is 1.9km south.

4. Habitats and Botany

4.1 The on-Site and boundary habitats and vegetation are broadly unchanged from that described in the EclA (Figure 1, Table 1). The Site comprises deciduous woodland with areas of grassland and limited areas of other habitats.

Figure 1. Phase 1 habitat map, taken from the EclA.

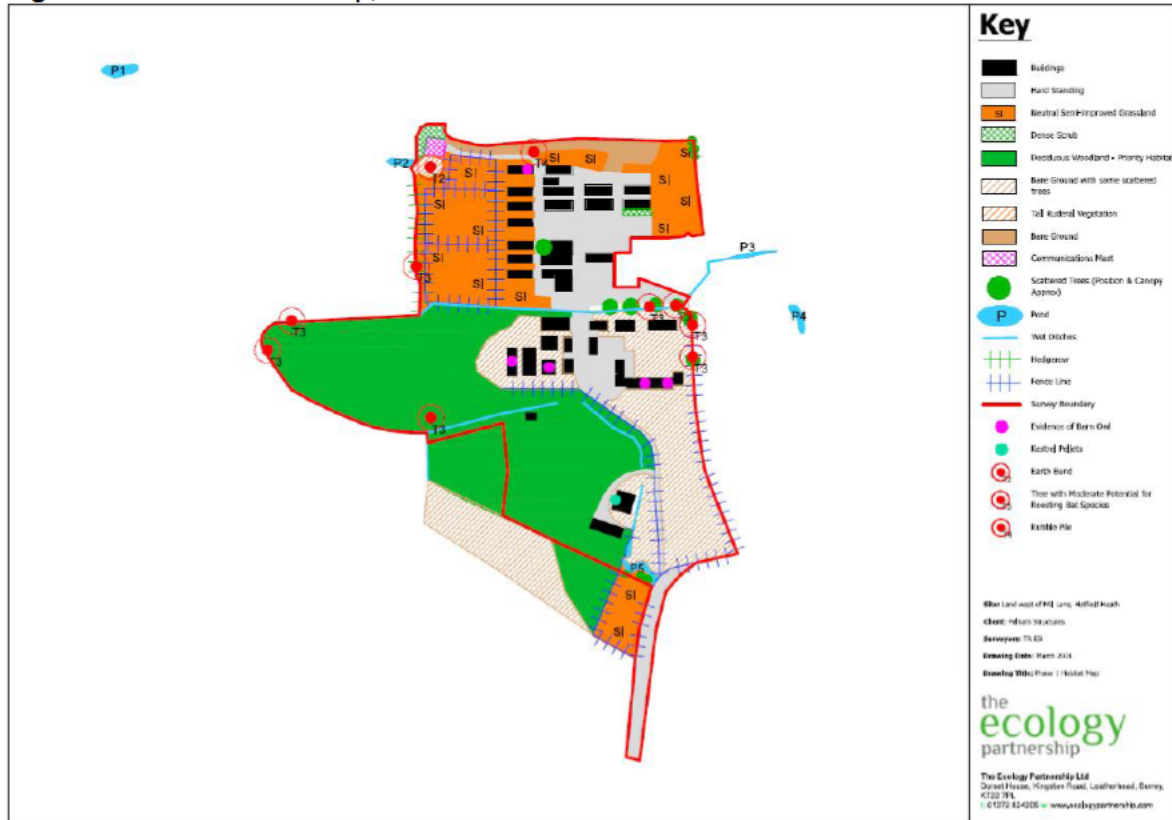


Table 1. Comparison of habitats.

Phase 1 habitat	Description in the EclA	Description in 2021
Woodland, deciduous	A block of deciduous woodland dominated largely by silver birch <i>Betula pendula</i> , with other species. A sparse woodland ground flora including some specialist such as enchanter's nightshade <i>Circaea lutetian</i> but with areas dominated by nettle <i>Urtica dioica</i> and other ruderals.	The woodland is unchanged from earlier, but key points are that the trees are relatively even aged and there shrub later is sparse. The age of the woodland is not known but is believed to be post-war.
Grassland (semi-improved, neutral)	The dominant species present within the areas of neutral improved grassland across the site were similar and included species such as: Yorkshire fog <i>Holcus lanatus</i> , cock's foot <i>Dactylis glomerata</i> , with an associated assemblage of common grassland herbs.	Unchanged in extent and condition.
Scrub with tall ruderals	The areas of scrub around the site were dominated by bramble <i>Rubus fruticosus</i> agg with patches of tall ruderals vegetation dominated by nettles.	Unchanged in extent and condition.

5. Great Crested Newts

5.1 The local pondscape is shown in Figure 2, with two marked ponds on-Site and three off-Site within 250m.

Figure 2. Local pondscape.



5.2 The EclA reported that great crested newts are present in the wider landscape, and obtained a positive e-DNA test result⁸ from one pond (Pond 2) with follow-up survey recording a single individual in a different pond (Pond 5). Ponds 4 and 5 were reported as having been surveyed for an unrelated scheme in 2013, without individuals being found.

5.3 In 2021 (Table 2, see also Appendix 2), two ponds were judged to be unsuitable as potential breeding habitat, two returned negative E-DNA test results, and the third was directly surveyed with singleton males recorded on three occasions

Table 2. Summary of pond and surveys and Habitat Suitability Index ratings.

Pond	2013	2016-17			2021		
	Direct surveys	E-DNA	Direct surveys	Habitat Suitability Index	E-DNA	Direct surveys	Habitat Suitability Index
1	Not surveyed	Negative	0	Average	-	-	Not suitable
2	Not surveyed	Positive	0	Below average	Negative	-	Poor
3	Not surveyed	Negative	0	Average	Negative	-	Average
4	Negative	Negative	0	Below average	-	-	Not suitable

⁸ <https://www.gov.uk/guidance/great-crested-newts-surveys-and-mitigation-for-development-projects>

Pond	2013	2016-17			2021		
	Direct surveys	E-DNA	Direct surveys	Habitat Suitability Index	E-DNA	Direct surveys	Habitat Suitability Index
5	Negative	Negative	1 individual, on 1 survey	Average	-	Peak count of 1 individual, on three surveys	Good

5.4 The overall conclusion is that the Site continues to support a small population of great crested newts, located in Pond 5. This was interpreted in the EclA as a transitory population without breeding, although it would probably be prudent to assume a small breeding population centred on the south of the Site.

6. Other Species

BATS

- 6.1 Most species of conservation concern are scoped out within the EclA, including roosting bats, reptiles and badgers. The Site has not changed significantly with respect to relevant habitat features, and the original scoping is considered robust (Table 3).

Table 3. Species scoping.

Species	EclA assessment	2021 Assessment
Great crested newts	A small non-breeding population of great crested newts were found to be present on site. Only one adult female newt was found during the surveys of the five water bodies on and around the site and no newts eggs were found during the egg searches. It is considered that the water bodies [REDACTED] are being used on an occasional basis by newts as aquatic stepping-stones across the landscape.	The assessment is unchanged. A small population is present at the south of the Site [REDACTED] Two ponds considered previously to be of average and below average suitability were dry and are not now considered suitable for breeding.
Bats roosting	- Despite a full survey of all parts of all buildings on site, there was no sign of any roosting by a bat at any time, either recently or historically. In fact, these types of buildings are mostly low, single storey and industrial buildings generally and are not used by bats. Occasionally, single bats may occur almost anywhere. Diligent searching revealed a total of three single bat droppings in the 35 buildings. All the buildings in the southern area have no glass in windows so there is free access to bats at any time. The survey undertaken has shown the buildings had absolutely no value for bats and there was no sign any bats had ever roosted in any of the structures, and it is extremely unlikely any would roost there in the future.	The assessment is unchanged. No evidence of bats was found and the assessment of the buildings considers them to have negligible roost potential. The assessment is unchanged.
Bats foraging	- Foraging habitat around mature tree edges of the site and within and along the woodland habitats. Ponds and ditches may provide some site level interest. Grassland habitat on site of negligible interest to bats.	The assessment is unchanged.
Reptiles	The grassland areas across the sites are well managed and regularly mown and kept to a short sward during the spring and summer. Heavy grazing from rabbits has also created a very short sward in some areas. This has created a habitat mosaic largely unsuitable for common reptile species due to the lack of cover and foraging opportunities.	The assessment is unchanged. Much of the Site is overly shaded for reptiles, including the tall ruderal vegetation which is also cut periodically. The grassland at the north of the Site is also mown, and it an open short sward.
Dormice	The large area of deciduous woodland within the site is considered to be sub optimal habitat for supporting hazel dormice. The woodland area lacked any shrub understory except for very small patches of bramble scrub. The understory mainly consisted of a thin leaf litter over largely bare earth. It is	The assessment is unchanged. The woodland continues to be isolated and with an open understory without key habitat features required by dormice.

Species	EclA assessment	2021 Assessment
	considered that the woodland lacks food sources and the vertical stratification to provide cover and nesting opportunities for hazel dormice. Given the isolation of the woodland block, its lack of significant connectivity to the wider landscape, the sub optimal nature of the habitat present and the lack of records for hazel dormice within 2km of the site, it is considered unlikely that hazel dormice will be present on site. No further surveys for this species are recommended.	
Barn owl	Evidence of barn owl activity was observed within three buildings within the southern section of the site. Pellets and white faecal splashing were observed within these buildings indicating the presence of a barn owl roost. No nests or potential nesting sites were observed during the surveys.	Old pellets were found in two buildings, but there was no evidence of recent perching and nesting is thought very unlikely.
Nesting birds	-	The woodland is relatively young and lacks higher quality features such as rotten snags and cavities. The assemblage of breeding birds is almost certainly limited to woodland and countryside generalists only.
Hedgehogs	-	Likely to be present.
Invertebrates	-	Specialist species are unlikely to be present, with relevant resources such as dead wood being scarce or only comprising common types. A small assemblage of widespread but declining moths (Butterfly Conservation, 2007 ⁹) is likely to be present.

⁹ Butterfly Conservation (2007) *Biodiversity Action Plan – Moths*. Available from: [REDACTED]

7. Discussion

EVALUATION

- 7.1 There are some differences in the assessment of value compared to the EclA, which centre on the interpretation and assignment of value, rather than a substantive change to the habitats and species on-Site (Table 4). Of note is that the woodland is not considered to be a priority type (following Maddock, 2010¹⁰), while the value of great crested newts and barn owls are reduced to local (from international and national, respectively).

Table 4. Summary of assessment of value.

Feature / species group	Assessment within the EclA	2021 Assessment
Woodland	Priority habitat.	The woodland is largely unchanged from that described in the EclA. While recognising the earlier evaluation of the habitat, it is noted that the tree cover is believed to be of post-war origin or later (as determined from OS maps). Although Maddock (loc. cit.) does not provide rigid criteria for priority woodland, it is considered that only semi-natural woodlands qualify. To further explore this point, reference is made to the Forestry Commission (2003) ¹¹ who broadly suggest that semi-natural woodland in eastern England pre-dates 1901, with woodlands established after this date not meeting semi-natural criteria. The woodland is not therefore considered to be a priority woodland type as defined by Maddock (loc. cit).
Great Crested Newts	International.	Local. No substantive change, but the value of the population (notwithstanding legal protection) is better considered to be of local value ¹² .
Bats foraging	Local.	Local.
Barn Owl	National.	Local. No substantive change, but the value of the species within the baseline (notwithstanding legal protection) is considered to be of local value ¹³ .
Breeding Birds	Local.	Local.
Other species, including hedgehogs and invertebrates	-	Local.

- 7.2 Notwithstanding any legal protection afforded (e.g. roosting bats and nesting birds), the Site supports lower quality habitat for most species and is probably typical of other mixed

¹⁰ Maddock, A. (2011) *UK Biodiversity Action Plan Priority Habitat Descriptions*. Available from: http://jncc.defra.gov.uk/PDF/UKBAP_PriorityHabitatDesc-Rev2011.pdf

¹¹ Forestry Commission (2003) *The Management of Semi-Natural Woodland*. Forestry Commission, Edinburgh.

¹² While protected at an international (European / Habitats Directives) scale, the population itself is not of international importance.

¹³ While specifically protected as a Schedule 1 species, barn owls are not of conservation concern and their presence is not of national importance.

grassland-arable farmland sites locally. Species of conservation concern would be present as minor components of larger local populations.

FURTHER SURVEYS

7.3 It is not thought that further surveys are required to inform the assessment or verification.

IMPACTS

7.4 The EclA provides an assessment of impacts for the scheme, divided between construction and operational phases, and with the consideration of mitigation measures. The mitigation measures are summarised in Table 5, and these are considered to be robust, appropriate and proportionate to the relevant features.

Table 5. Summary of mitigation measures.

Feature	Mitigation actions
Woodland	Long term management of retained woodland blocks and trees through management plan.
Other habitats	New diverse habitat developed through new planting.
Foraging bats	Retention of trees, improved management, and new planting Lighting plan to be conditioned.
Great crested newts	Translocation of GCN following best practice. New planting and sensitive habitat management.
Barn owls	New nest box roosting provisions.
Other birds	Removal of vegetation outside of bird breeding season. New nest box roosting provisions.

7.5 With the implementation of mitigation, the residual impacts are judged to be minor positive or negligible.

- Minor positive impacts: Habitats, bats and breeding birds.
- Negligible impacts: Great crested newts, and barn owls.

8. Conclusion

- 8.1 The on-Site and boundary habitats and vegetation are broadly unchanged from that described in the EclA. The species surveys and scoping likewise is considered to be unchanged from the EclA, and of noted is:
- Great crested newts continue to be present as a small population.
 - Bat roosts are scoped out based on a visual inspection and roost appraisal. The buildings lack potential roost features
- 8.2 In terms of the evaluation of features and species, there are some differences in opinion from the EclA, specifically:
- The woodland is not considered to be a priority habitat. As interpreted, the criteria for the priority habitat include a 'semi-naturel' origin, which is believed to be based on being of pre-1901 in origin.
 - The great crested newts and barn owls are considered to be of local importance. Other assigned values are unchanged.
- 8.3 The assessment of impacts and required mitigation measures as presented in the EclA are considered robust. The overall assessment of residual impacts is also considered robust, and are as follows:
- Minor positive impacts: Habitats, bats and breeding birds
 - Negligible impacts: Great crested newts, and barn owls
- 8.4 In summary, it is considered that the EclA and supporting reports continue to be valid and robust.

9. Appendix 1: Photographs 2019



Figure 5.
View from close to the south boundary.



Figure 6.
Semi-improved neutral grassland grading into woodland.



Figure 7.
Buildings on the southern part of the Site.



Figure 8.
Pond 5.

10. Appendix 2: Great Crested Newt Surveys Information



File No: E10681
 Report No: 1
 Purchase Order: P0003
 Client: HOPKINS ECOLOGY
 Contact: Graham Hopkins

TECHNICAL REPORT

ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS (TRITURUS CRISTATUS)

SUMMARY

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analysing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

RESULTS

Date sample received at Laboratory: 01/06/2021
 Date Reported: 07/06/2021
 Matters Affecting Results: None

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
2824	Hatfield - South	TL519155	Pass	Pass	Pass	Negative	0
2826	Hatfield - North	TL518154	Pass	Pass	Pass	Negative	0

If you have any questions regarding results, please contact us: ForensicEcology@surescreen.com

Reported by: Chris Troth

Approved by: Chris Troth



METHODOLOGY

The samples detailed above have been analysed for the presence of GCN eDNA following the protocol stated in DEFRA WCI067 'Analytical and methodological development for improved surveillance of the Great Crested Newt, Appendix 5.' (Biggs et al. 2014). Each of the 6 sub-sample tubes are first centrifuged and pooled together into a single sample which then undergoes DNA extraction. The extracted sample is then analysed using real time PCR (qPCR), which uses species-specific molecular markers to amplify GCN DNA within a sample. These markers are unique to GCN DNA, meaning that there should be no detection of closely related species.

If GCN DNA is present, the DNA is amplified up to a detectable level, resulting in positive species detection. If GCN DNA is not present then amplification does not occur, and a negative result is recorded.

Analysis of eDNA requires scrupulous attention to detail to prevent risk of contamination. True positive controls, negative controls and spiked synthetic DNA are included in every analysis and these have to be correct before any result is declared and reported. Stages of the DNA analysis are also conducted in different buildings at our premises for added security.

Surescreen Scientifics Ltd is ISO9001 accredited and participate in Natural England's proficiency testing scheme for GCN eDNA testing. We also carry out regular inter-laboratory checks on accuracy of results as part of our quality control procedures.

INTERPRETATION OF RESULTS

SIC: Sample Integrity Check [Pass/Fail]
 When samples are received in the laboratory, they are inspected for any tube leakage, suitability of sample (not too much mud or wood etc.) and absence of any factors that could potentially lead to inconclusive results.

DC: Degradation Check [Pass/Fail]
 Analysis of the spiked DNA marker to see if there has been degradation of the kit or sample between the date it was made to the date of analysis. Degradation of the spiked DNA marker may lead indicate a risk of false negative results.

IC: Inhibition Check [Pass/Fail]
 The presence of inhibitors within a sample are assessed using a DNA marker. If inhibition is detected, samples are purified and re-analysed. Inhibitors cannot always be removed, if the inhibition check fails, the sample should be re-collected.

Result: Presence of GCN eDNA [Positive/Negative/Inconclusive]
Positive: GCN DNA was identified within the sample, indicative of GCN presence within the sampling location at the time the sample was taken or within the recent past at the sampling location.
Positive Replicates: Number of positive qPCR replicates out of a series of 12. If one or more of these are found to be positive the pond is declared positive for GCN presence. It may be assumed that small fractions of positive analyses suggest low level presence, but this cannot currently be used for population studies. In accordance with Natural England protocol, even a score of 1/12 is declared positive. 0/12 indicates negative GCN presence.
Negative: GCN eDNA was not detected or is below the threshold detection level and the test result should be considered as evidence of GCN absence, however, does not exclude the potential for GCN presence below the limit of detection.

Habitat Suitability Index

The ponds were evaluated using the Habitat Suitability Index (HSI) methodology (ARG, loc. cit.). The HSI of a pond is determined by calculating a geometric mean of 10 component factors of 'Suitability Indices' (SI) that are known to have an influence on its suitability as a breeding location for great crested newts (see Table 6), thus:

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

Once calculated, the HSI score for a waterbody can be categorised as follows:

- Excellent (>0.8)
- Good (0.7 – 0.79)
- Average (0.6 – 0.69)
- Below Average (0.5 – 0.59)
- Poor (<0.5)

Table 6. Habitat Suitability Index: component factors or SIs.

Index	Name	Description
SI1	Geographic Location	Lowland England or upland England, Scotland and Wales
SI2	Pond area	To the nearest 50m ²
SI3	Permanence	Number of years pond dry out of ten
SI4	Water quality	Measured by invertebrate diversity
SI5	Shade	Percentage shading of pond edge at least 1m from shore
SI6	Fowl	Level of waterfowl use
SI7	Fish	Level of fish population
SI8	Pond count	Number of ponds within 1km ²
SI9	Terrestrial habitat	Quality of surrounding terrestrial habitat
SI10	Macrophytes	Percentage extent of macrophyte cover on pond surface

Survey information is given in Tables 7 and 8, and the results in Table 9.

Table 7. Habitat Suitability Index assessments for 2021.

7a.

Factor	Pond 2		Pond 3	
	Field Score	Factor Score (SI)	Field Score	Factor Score (SI)
Location	Optimal	1	Optimal	0.77
Pond area (m ²)	10	0.1	60	0.1
Pond permanence	Dries annually	0.1	Rarely dries	1
Water quality	Moderate	0.67	Moderate	0.67
Shade %	100	0.2	50	0.6
Fowl	Absent	1	Absent	1
Fish	Absent	1	Absent	1
Pond density km ⁻²	>5	1	>5	1
Terrestrial habitat	Moderate	0.67	Moderate	0.67
Macrophyte cover % (likely, estimated)	0	0.3	10	0.4
HSI score	-	0.44	-	0.62
Rating	Poor		Average	

7b.

Factor	Pond 5	
	Field Score	Factor Score (SI)
Location	Optimal	1
Pond area (m ²)	75	0.2
Pond permanence	Rarely dries	1.0
Water quality	Moderate	0.67
Shade %	60	1
Fowl	Absent	1
Fish	Absent	1
Pond density km ⁻²	>5	1
Terrestrial habitat	Moderate	0.67
Macrophyte cover % (likely, estimated)	20	0.5
HSI score	-	0.73
Rating	Good	

Table 8. Weather conditions

Date	Weather
13 May 2021	11°C, partial cloud cover (80%), light wind (Beaufort 1)
14 May 2021	10°C, partial cloud cover (50%), light wind (Beaufort 1)
16 May 2021	12°C, partial cloud cover (50%), light wind (Beaufort 1)
24 May 2021	12°C, partial cloud cover (50%), light wind (Beaufort 1)
02 June 2021	12°C, partial cloud cover (10%), light wind (Beaufort 1)
06 June 2021	13°C, partial cloud cover (10%), light wind (Beaufort 1)

Table 9. Summary of survey conditions.

Date	Turbidity (0=completely clear, 5=very turbid)	Vegetation cover (0=no vegetation obscuring, 5=water completely obscured)
Pond A		
All dates	3	0

Table 10. Survey results. The great crested newt counts are from bottle trapping, and all others from torching. The methods on all surveys were bottle trapping (10 traps), torching and egg search.

Pond	Date	Result			
		Great crested newts	Common frog	Common toad	Smooth newt
■	13 May 2021	0	0	0	2
	14 May 2021	1 male	0	0	3
	16 May 2021	1 male	1	0	5
	24 May 2021	0	1	0	3
	02 June 2021	1 male	0	0	3
	06 June 2021	0	0	0	2

11. Appendix 3: Legislation Summary

Non-technical account of relevant national legislation and policies.

Species	Legislation	Offence	Licensing
Bats: European protected species	Conservation of Habitats and Species Regulations 2010 (as amended) Reg 41	Deliberately capture, injure or kill a bat; deliberate disturbance of bats; or damage or destroy a breeding site or resting place used by a bat. [The protection of bat roosts is considered to apply regardless of whether bats are present.]	A Natural England (NE) licence in respect of development is required.
Bats: National protection	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.
Birds	Wildlife and Countryside Act 1981 (as amended) S.1	Intentionally kill, injure or take any wild bird; intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built. Intentionally or recklessly disturb a Schedule 1 species while it is building a nest or is in, on or near a nest containing eggs or young; intentionally or recklessly disturb dependent young of such a species [e.g. kingfisher].	No licences are available to disturb any birds in regard to development.
Great crested newt: European protected species	Conservation of Habitats and Species Regulations 2010 (as amended) Reg 41	Deliberately capture, injure or kill a great crested newt; deliberate disturbance of a great crested newt; deliberately take or destroy its eggs; or damage or destroy a breeding site or resting place used by a great crested newt.	Licences issued for development by Natural England.
Great crested newt: National protection	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb it in such a place.	A licence is required from Natural England for surveying and handling.
Adder, common lizard, grass snake slow worm	Wildlife and Countryside Act 1981 S.9(1) and S.9(5)	Intentionally kill or injure any common reptile species.	No licence is required. However, an assessment for the potential of a site to support reptiles should be undertaken.
Scientific Interest (SSSI)	Wildlife and Countryside Act 1981 (as amended)	To carry out or permit to be carried out any potentially damaging operation. SSSIs are given protection through policies in the Local Development Plan.	Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 before undertaking operations likely to damage a SSSI. All public bodies to further the conservation and enhancement of SSSIs.

Species	Legislation	Offence	Licensing
County Wildlife Sites	There is no statutory designation for local sites.	Local sites are given protection through policies in the Local Development Plan.	Development proposals that would potentially affect a local site would need to provide a detailed justification for the work, an assessment of likely impacts, together with proposals for mitigation and restoration of habitats lost or damaged.