Bat and Great Crested Newt Survey Report

Shelley College

Huddersfield Road, Shelley, Huddersfield

July 2023

Prepared for: Sports Labs

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EXECUTIVE SUMMARY

- On 12th January 2022 Preliminary Ecological Appraisal was undertaken at Shelley College, Huddersfield in respect to proposals to install an artificial sports facility.

- The survey site, which encompassed open ground to the rear of the school buildings, comprises managed mesotrophic grassland and mature trees and woodland around the site boundary.

Bats

- There is high suitability for commuting and foraging bats around the site boundaries and in addition, trees to the northwest of the proposed sports pitch had potential for roosting bats, containing potential roost features. Further survey work was recommended to determine the potential impact upon this species group as a result of the lighting of the proposed sports facility and to inform any necessary mitigation.

- Bat activity survey work was undertaken in Spring (May) and Summer (June) 2023. The survey work confirmed the use of the site by six bat species. The majority of activity was associated with two pipistrelle species. The level of bat activity at the site in general was considered to be low and the tree lines and hedgerows present do not appear to provide a valuable foraging corridor or commuting route.

- Potential roost features in trees inspected along the northwest boundary of the site had negligible suitability for bats. The survey work did not provide any evidence of a bat roost on site or close to site.

- The proposed 3G Sports Facility design takes into consideration the wooded boundary to the southwest and ensures a dark corridor remains. The lighting proposed will be LED, to minimise attraction of invertebrates (preventing alteration in bat natural behaviour) and will be restricted to specific hours of use which will minimise the risk of disturbance of bats over the spring and summer months.

- Overall, if the following design and mitigation is implemented, the proposals for the 3G Sports Facility are unlikely to have any significant impact upon roosting, foraging and commuting bats.

1. Introduction

1.1 Application Site

1.1.1 This report details bat activity and roost survey work and great crested newt presence/absence survey work at Shelley College, Huddersfield Road, Shelley Woodhouse, Huddersfield, HD8 8NL. Ordnance Survey grid reference (centre of site): SE 2211 1056.

1.1.2 Sports Labs commissioned Verity Webster Ltd to undertake the survey work to inform the planning application.

1.2 Objectives

1.2.1 The objectives of the Bat Activity and Roost survey work are to determine:

- Whether bats are present or absent
- Which bat species use the site
- What the activity levels are around the site and what they suggest about abundance
- What the bats are using the site for
- The temporal and special distribution of bat activity within the site.
- How the proposed works might impact bats using the site.
- How any impacts might be avoided, mitigated and/or ameliorated, including recommendations for further survey work if required.
- Potential for enhancement of the site for protected species, habitats of conservation interest and overall biodiversity.

1.2.2 The objectives of the Great Crested Newt Presence / Absence survey are to determine:

- Whether the pond(s) within 250m of the site support great crested newt.
- If great crested newts are present, whether the population is breeding in the pond(s).
- The size class of any population present.
- The potential impacts of the proposals on any great crested newt population.
- How any impacts might be avoided, mitigated and, or ameliorated, including advice on European Protected Species Mitigation (EPSM) application if required.
- Potential for enhancement of the site for great crested newts and biodiversity.

1.3 Proposals

1.3.1 The proposals comprise the construction of an artificial sports pitch on grounds to the southwest of the school building complex.

1.4 Ecologist

1.4.1 The Ecological Assessment was undertaken by Verity Webster. Verity is a Chartered Ecologist and a full member of the Chartered Institute of Ecology and Environmental Management.

1.4.2 Verity has worked as an ecological consultant since 2007. She has undertaken Ecological Assessments and protected species surveys for a large variety of projects and schemes, producing the required impact assessment and subsequent mitigation schemes and method statements when necessary.

2. Site Location and Description

2.1 Site Location

2.1.1 Shelley College is located in a semi-rural location between Shelley Woodhouse and Skelmanthorpe, Huddersfield.

2.1.2 The College is located to the south of Huddersfield Road, which runs northwest to southeast. Shelley Woodhouse Lane runs north to south along the western boundary of the college grounds and approximately 50m west of the proposed development site.

2.1.3 The Kirkees Light Railway runs southwest to northeast approximately 250m to the northwest of the College. The railway forms a habitat corridor of woodland through the countryside and built-up landscape.

2.1.4 There are houses with gardens immediately to the northeast of the college, but to the south and southeast beyond Shelley Woodhouse Lane, and to the north and northwest beyond Huddersfield Road there is open countryside comprising arable land and pasture divided by tree lines and hedgerows.

2.1.5 There are scattered waterbodies throughout the landscape and small brooks.

2.1.6 Overall, the site is in an area with moderate to high suitability for wildlife including protected species.

2.2 Site Description

2.2.1 Shelley College comprises a complex of buildings to the northeast of the site, just south of Huddersfield Road, with playing fields to the southwest, between the buildings and Shelley Woodhouse Lane.

2.2.2 The survey site comprises the land to the southwest of the building complex and one building on this southwestern side of the site closest to the proposed development.

2.2.3 The survey site encompasses an area of hard standing (gravel) and amenity grassland with a tree line to the northwest, a hedgerow to the south and a wooded boundary to the east along Shelley Woodhouse Lane.

2.2.4 The building is a single-storey brick structure with a flat, metal roof and metal fascia.

Looking northwest across the survey site

Looking west towards the tree lined boundary

Figure 1: Ordnance Survey Map Showing the Location of the Proposed Development Site.

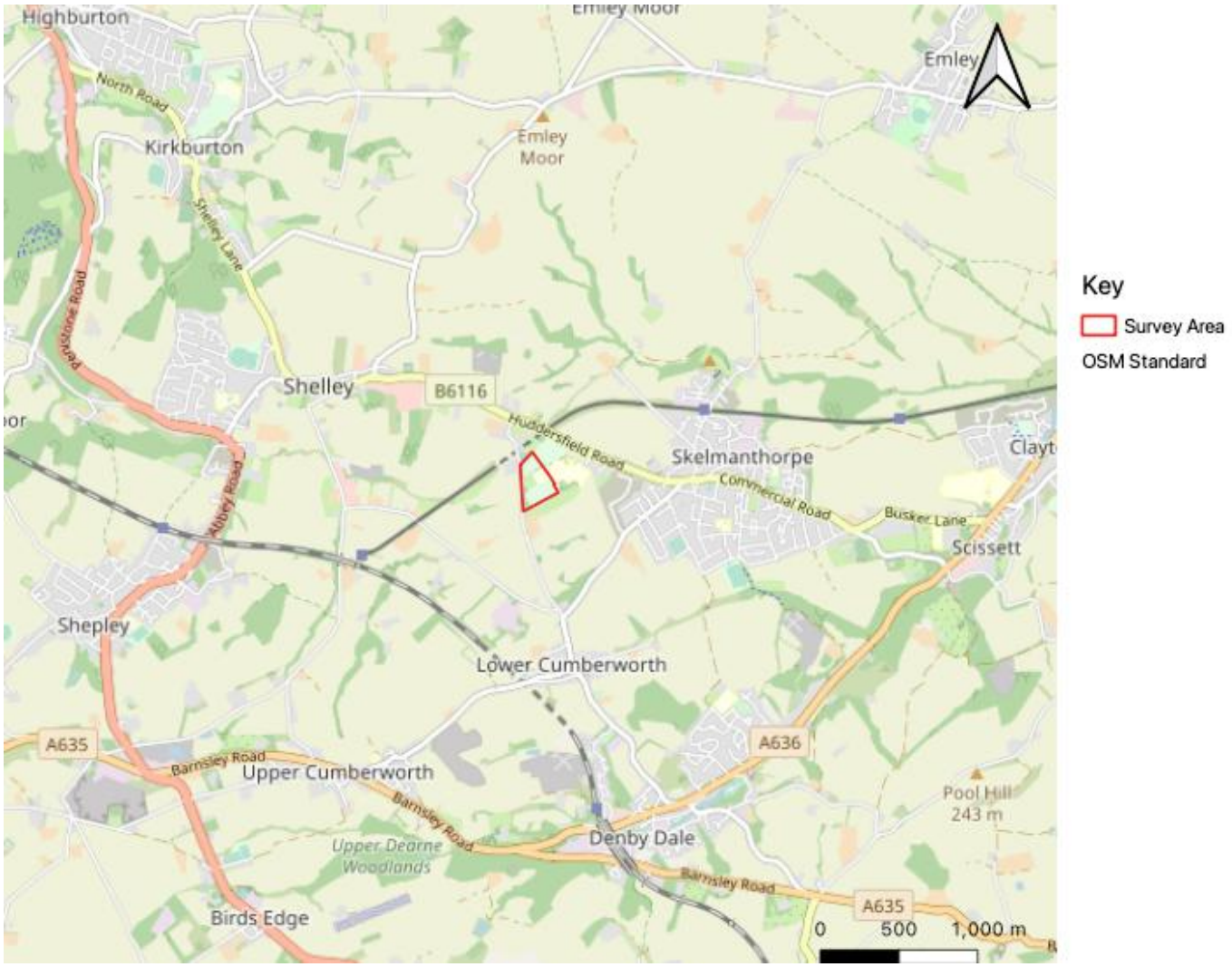
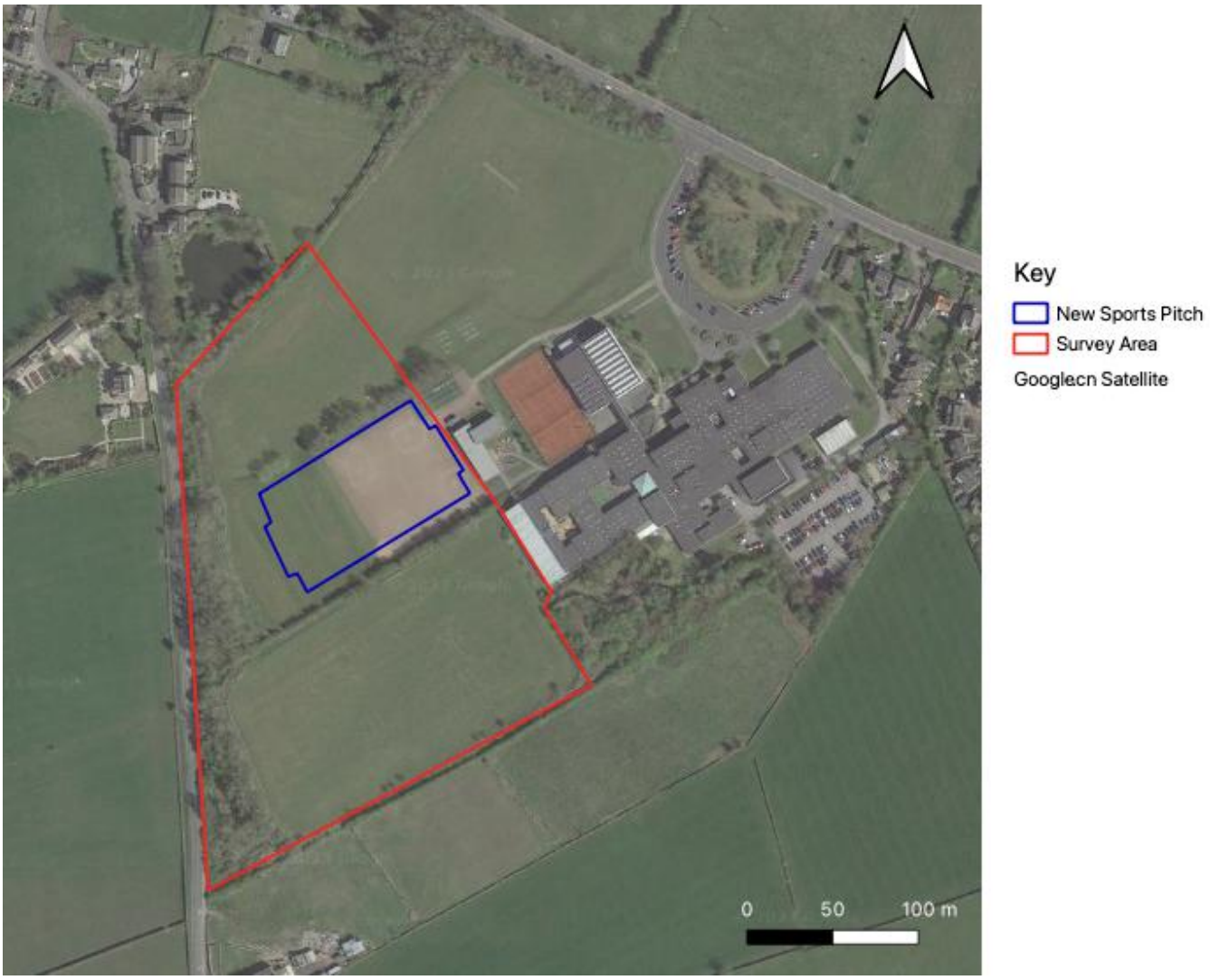


Figure 2: Aerial Image of the Survey Site in Relation to the Surrounding Habitats

Figure 3: The Preliminary Ecological Appraisal Survey Site – Showing the location of the new sports pitch



3. Legislation

Relevant legislation is listed here. For full details, refer to Appendix A.

3.1 Bats

3.1.1 All UK bats receive full protection under the Wildlife and Countryside Act 1981 and are also protected under The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2017 (the Habitats Regs).

3.1.2 This makes it an offence to:

- Capture, injure or kill any bat,
- Disturb a bat of any species,
- Damage or destroy a breeding site or resting place of a bat (ie. The roost)
- Possess any bat, or part of a bat
- Offer for sale or trade any bat, or part of a bat

3.2 Badger

3.2.1 Under the Badger Act 1992, it is an offence to:

- Take, injure or kill a badger, or attempt to do so
- Cruelly ill-treat a badger
- Interfere with a badger sett including:
    - Damaging a badger sett or any part of it
    - Destroying a sett
    - Obstructing access to, or entry to a sett
    - Causing a dog to enter a sett; or
    - Disturbing a badger whilst it is occupying a sett.

3.3 Reptiles

3.3.1 Smooth snake and sand lizard receive full protection under the Wildlife and Countryside Act 1981 and are also protected under The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2017 (the Habitats Regs).

3.3.2 This makes it an offence to:

- Capture, injure or kill one of these species,
- Disturb these species,
- Damage or destroy a breeding site or resting place of these species.
- Possess one of these species, or part of one
- Offer for sale or trade one of these species, or part of one

3.3.3 Common lizard, adder, grass snake and slow-worm are partially protected under the Wildlife and Countryside Act 1981. This makes it an offence to:

- Kill or injure one of these species.
- Offer for sale or trade one of these species, or part of these animals.

3.4 Amphibians

3.4.1 Great crested newts receive full protection under the Wildlife and Countryside Act 1981 and are also protected under The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2017 (the Habitats Regs).

3.4.2 This makes it an offence to:

- Capture, injure or kill one of these species,
- Disturb these species,
- Damage or destroy a breeding site or resting place of these species.
- Possess a great crested newt, or part of this animal
- Offer for sale or trade a great crested newt, or part of this animal.

3.4.3 Common lizard, adder, grass snake and slow-worm are partially protected under the Wildlife and Countryside Act 1981. This makes it an offence to:

- Kill or injure one of these species.
- Offer for sale or trade one of these species, or part of these animals.

3.4.4 Common toad, common frog, palmate newt and smooth newt are protected from sale or trade only.

3.5 Section 41 Habitats and Species of Principal Importance

3.5.1 Section 41 Habitats and Species of Principal Importance (NERC Act 2006) are a material consideration for planners. The list is derived from the UK Biodiversity Action Plan list and supports species and habitats of conservation concern.

3.5.2 Species relevant to this report include hedgehog and common toad.

3.6 Designated Sites

3.6.1 Sites of conservation interest can be designated on a statutory or non-statutory basis.

3.6.2 Statutory sites can be designated under UK legislation (the Wildlife and Countryside Act 1981), European Law (the Habitats Regulations 2017) or International law (Ramsar Convention).

3.6.3 Non-statutory sites can be designated by the Local Planning Authority, and different counties have different ways of designating local wildlife sites. Examples are Local Wildlife Sites and Biological Heritage Sites.

3.7 Planning Policy and Legislation

3.7.1 Under the NERC Act 2006, planning authorities are obliged to make sure that they have all the information on the presence of protected species on site before they make a decision on the planning permission.

3.7.2 The National Planning Policy Framework (NPPF) encourages Local Planning Authorities to conserve and enhance biodiversity.

Chapter 15, Para 170 of NPPF states: *"The planning system should contribute to and enhance the natural and local environment by:*

a) ***protecting and enhancing valued landscapes, sites of biodiversity*** *or geological value and soils….*

d) ***minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures***".

Para 171 states: "*Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."*

Para 174 identifies that plans should do the following to protect and enhance biodiversity and geodiversity:

a) "***Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and***

b) ***Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and peruse opportunities for securing measurable net gains for biodiversity.***"

3.7.3 Para 175 states that "*when determining planning applications, local authorities should apply the following principles:*
a) ***if significant harm to biodiversity from a development cannot be avoided…,adequately mitigated, or, as a last resort compensated for, then planning permission should be refused***''

3.7.4 The local planning authority has a responsibility, therefore, to obtain all information regarding the potential for protected species on a site prior to making a decision about a proposal.

Bat Activity and Roost Survey

4. Bats: Survey Methodology

4.0.1 The bat survey work was undertaken in accordance with currently accepted guidance: Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edn). The Bat Conservation Trust, London.

4.1 Transect Surveys

4.1.1 Transect surveys were undertaken using a predetermined route around the site. The direction of survey was alternated.

4.1.2 The survey work was undertaken from 15 minutes before sunset to 2 hours after sunset on the following dates:

- 2nd May 2023 (Spring)
- 5th June 2023 (Summer)

4.1.3 The time, activity (emergence, foraging, commuting) and species of bats (where possible) were recorded when observed.

4.1.4 Heterodyne Duet bat detectors and EM Touch detectors were used to record the bats.

4.1.5 Figure 4 shows the transect route.

4.1.6 Following completion of the transect and static detector surveys in spring and summer, additional survey work in Autumn was not considered necessary given the low level of bat activity on site.

4.2 Automated/static surveys

4.2.1 Automated/static detector surveys were used to determine the species present on site and the level of activity in different locations of the site across the entire night in spring and summer.

4.2.2 This is because spring and summer months are considered to be the height of the bat survey season, when activity would expect to be at the highest level and, therefore, when any impact by lighting might have the most impact.

4.2.3 An Anabat Swift detector was used to record bat activity across 13-17 nights on the northwest, southwest and southeast boundary of the survey site (See Figure 4). The northeast boundary was not monitored in detail because the bat activity on this side of the site was likely to be low given the lack of vegetation and this assumption was confirmed during the transect surveys.

4.2.4 The static detector was placed on site as follows:

- 2-19th May on the northwest boundary (Spring)
- 20th May – 2nd June on the southwest boundary (Spring/Summer)
- 3rd – 16th June on the southeast boundary (Summer)

4.2.5 Data was analysed to determine the species present and the maximum activity levels associated with each boundary.

4.3 Preliminary Roost Assessment of Trees

4.3.1 A detailed Preliminary Roost Assessment of the trees from the ground to record Potential Roost Features was undertaken if they have been identified as likely to be impacted by the proposals.

4.3.2 On 16th July 2023 six trees along the tree line northwest of the proposed sports pitch were inspected to determine the suitability of the Potential Roost Features (PRFs) for bats during an aerial (climbing) inspection with use of an endoscope (Ridgid SeeSnake Inspection Camera CA-150). This work was undertaken by Verity Webster (licenced bat worker) and James Callan (arborist).

4.3.3 Potential Roost Features include:

- Rot holes, including butt-rot
- Woodpecker holes
- Branch scars and rips
- Cankers with cavities
- Horizontal cracks and splits such as hazard beams
- Flaking or partially-detached bark
- Holes between double-leaders
- Dense ivy
- Bird, bat or dormouse boxes.

4.3.4 The signs and condition of the PRFs were assessed, including assessment of the following factors:

- Presence of bats
- Presence of droppings
- The dust / debris present
- Whether the interior is smooth or rough, damp, wet etc.
- Presence of association species (woodlice and dusky slug)

4.3.5 As a result of the preliminary roost assessment, the trees(s) and the PRFs are categorised as to whether or not the features were likely to be, or are confirmed bat roosts or not.

4.3.6 Further survey is recommended depending upon the findings.

Suitability of trees for bats

4.3.7 Trees were assessed as having low, moderate or high suitability for bats as follows:

- **Negligible suitability**: Lack any Potential Roost Features (PRFs)
- **Low suitability**: Have one or a small number of PRFs that are superficial and unlikely to be roost sites. Precautionary methods of work will be required prior to felling / tree works.

- **Moderate suitability**: Have one or more PRFs that require further assessment. Inspection of PRFs from the ground or by climbing will be necessary in order to categorise the features.

- **High suitability**: Have one or more PRFs that appear likely to provide suitable roost opportunities. Inspection of PRFs from the ground or by climbing will be necessary in order to categorise the features.

Categorisation of Potential Roost Features

4.3.8 Potential Roost Features were assessed as follows:

- **Unsuitable** – feature is not suitable for roosting bats.

- **Unlikely to be a roost** – features does not provide factors often favoured by bats. Very unlikely to be a roost. Precautionary method of work during felling may be required

- **Possible roost** – Conditions of the PRF suggest that it may be suitable, but there are no signs to confirm this. Further survey work may be required to determine whether the site is a roost. Precautionary method of work during felling will be necessary, including a pre-check of any features for bats and signs of bats

- **Confirmed roost** – Condition of the PRF or signs present confirm or strongly suggest the feature is a roost. Further survey work will be necessary. It would be a requirement to obtain an European Protected Species Mitigation (EPSM) licence from Natural England prior to works being undertaken. Appropriate mitigation will be necessary.

Figure 4: The Bat Survey Transect and Location of the Static Detector and Tree Inspection

5. Bats: Findings of the Spring Survey

5.1 Transect Survey

Survey 1: Evening Emergence Survey on 2nd May 2023

Surveyors: Verity Webster Bsc MSc CEcol MCIEEM (bat licence Class 2) and Derren Bailey (four seasons bat survey experience).

Weather: 10-8°c. 20% cloud cover across the survey period, dry, humidity 86%, still. Wind 6mph northwest

Sunset: 20:38

Time on site: 20:20 – 22:40

5.1.1 A single species of bat was recorded on site: common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*).

5.1.2 The first bat pass was recorded at 21:03, 25 minutes after sunset along the northern boundary of the site. This bat was commuting. A second bat was recorded at 21:25 foraging along the tree line to the north west of the proposed sports pitch. At 21:32 a single pipistrelle was recorded commuting along the southern boundary. Another single pass was recorded along the northern boundary at 22:14. No other activity was recorded during the survey.

5.1.3 Overall, the activity on site was considered to be very low.

Survey 2: Evening Emergence Survey on 5th June 2023

Surveyors: Verity Webster Bsc MSc CEcol MCIEEM (bat licence Class 2) and Derren Bailey (four seasons bat survey experience).

Weather: 10°c. 45% cloud cover across the survey period, dry, humidity 79%, still. Wind 8mph east

Sunset: 21:30

Time on site: 21:15 – 23:30

5.1.4 A single species of bat was recorded on site; common pipistrelle (*Pipistrellus pipistrellus*).

5.1.5 The first bat pass was recorded at 21:57, 27 minutes after sunset along the western boundary of the site. This bat was recorded foraging and was consistently foraging.

5.1.6 Single common pipistrelle pass was recorded along the northern boundary at 22:10 and 22:26.

5.1.7 Two brief passes were also recorded along the western tree line at 22:16 and 23:02. No other bat activity was recorded during the evening.

5.2 Static Detector Survey

Bat Activity 2nd-19th May (northwest boundary)

5.2.1 The spring static detector survey of the northwest boundary of the site was undertaken between 2nd – 19th May 2023.

Table 1: 2nd-19th May (northwest boundary)

Species	No. Nights recorded out of 17	Max passes in 30 mins (activity level)
Common pipistrelle	16	118
Soprano pipistrelle	1	2
Myotis (whiskered/Brandt's bat)	2	1
Daubenton's bat	0	0
Noctule	2	11
Nyctalus/Eptesicus	0	0

Assessment

5.2.2 Four species of bat were recorded on site between 2-19th May on the northwest boundary tree line. Common pipistrelle (*Pipistrellus pipistrellus*) is by far the most frequent bat species recorded, recorded on all nights except one. This corresponds with the findings of the transect surveys also, when common pipistrelle was the only species recorded. The majority of the calls were captured in the first hour after sunset, although there are records of calls in the middle of the night (midnight or 1am). The evening transects, undertaken in the two hours after sunset would therefore be expected to identify common behaviour of common pipistrelles in the locality.

5.2.3 There are no records in early morning from 2-6am suggesting that there is not swarming or significant roost close to the site. Common pipistrelles will swarm early in the morning prior to returning to a roost such as a maternity roost and if a roost of significance were present in close proximity to the survey location, calls in the morning would be expected.

5.2.4 Soprano pipistrelle (*Pipistrellus pygmaeus*) was recorded just once, whilst whiskered or Brand's bat (*Myotis mystacinus* or *Myotis brandtii*), were recorded just twice, indicating that they are not regular visitors to the school grounds.

5.2.5 Noctule was recorded on just two evenings, with eleven calls recorded on a single evening, suggesting this species was foraging over the site at this time.

Bat Activity 20th May – 2nd June (eastern wooded boundary)

5.2.6 The bat activity along the eastern, wooded tree line was monitored between 20th May and 2nd June.

Table 2: 20th May – 2nd June (eastern wooded boundary)

Species	No. Nights recorded out of 13	Max passes in 30 mins (activity level)
Common pipistrelle	10	100
Soprano pipistrelle	12	17
Myotis (whiskered/Brandt's bat)	5	1
Daubenton's bat	1	1
Noctule	4	3
Nyctalus/Eptesicus	0	0

Assessment

5.2.7 Five species were recorded on site between 20th May and 2nd June on the eastern boundary tree line/woodland edge. It would be anticipated that this boundary would result in higher numbers of passes as it provides good quality woodland edge habitat that is well established. However, the activity level is similar to that recorded along the northwest tree line. In general, this is a relatively low level of activity. Common pipistrelle (*Pipistrellus pipistrellus*), the species most frequently recorded, was recorded only 100 times on the most active night; this is a relatively low level of activity, but is consistent with the findings of the transect surveys.

5.2.8 Soprano pipistrelle was recorded more frequently along the eastern boundary, almost every night, which may reflect that this boundary is well-established and is likely to provide a commuting route for a small number of bats. This boundary does not appear to be a significant commuting route, however, as the number of passes is very low for all species.

Bat Activity 3rd -16th June 2023 (southeast hedgerow)

5.2.9 The bat activity along the eastern, wooded tree line was monitored between 3rd and 16th June.

Table 3: 3rd -16th June 2023 (southeast hedgerow)

Species	No. Nights recorded out of 13	Max passes in 30 mins (activity level)
Common pipistrelle	13	173
Soprano pipistrelle	12	157
Myotis (whiskered/Brandt's bat)	6	2
Daubenton's bat	3	1
Noctule	6	3
Nyctalus/Eptesicus	1	1

Assessment

5.2.10 Six species were recorded on site between 3rd and 16th June along the southeast hedgerow. Consistent with the other surveys, common pipistrelle is the most frequent species, but soprano pipistrelles have also been recorded more frequently along the hedgerow boundary. This may be a seasonal difference, and activity may just be higher in June than in May for this species.

5.2.11 Overall, however, the number of passes is still relatively low for the pipistrelle species. The transect survey results and previous static deployment reflect this finding.

5.2.12 Passes by *Myotis*, Daubenton's bat, noctule and *Nactalus/Eptesicus* species represent sporadic passes and suggest no foraging by these species on site. Both common and soprano pipistrelle were recorded foraging.

5.3 Tree Inspection

5.3.1 All trees on site in close proximity to the proposed 3G pitch were assessed for their suitability for bats.

5.3.2 Six trees along the tree line to the northwest of the proposed sports pitch were identified as having high suitability for bats due to the presence of Potential Roost Features (PRFs). Subsequently, an aerial inspection took place to determine the suitability of the roost features for bats.

Table 1: Tree Suitability Assessment and PRF Categorisation

5.3.3 Please refer to Figure 4.

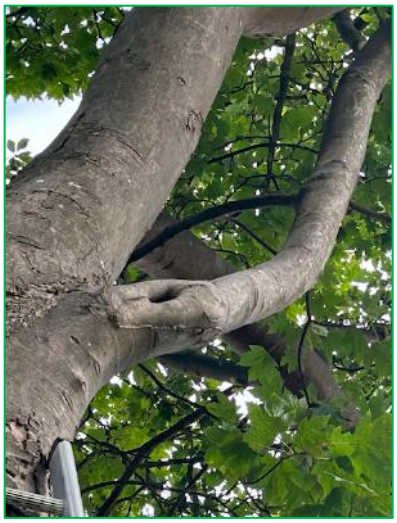
Tree number	Species	Assessment	Suitability of PRF for bats
T1	Beech (*Fagus sylvatica*)	This standard tree is mature and on the east end of the tree line. The tree has extensive rot from 4m up facing northwest.	Unsuitable. A pigeon nest is present in the cavity. The cavity is too exposed for bats. Cavity wood is flaking and wet.
T2	Sycamore (*Acer psudoplatanus*)	This standard tree is mature, located at the east end of the tree line. There is an old branch tear facing northeast approximately 1.5m up.	Unsuitable. The cavity extends 50cm up the stem and is wet with fungi internally. No evidence of bats.
T3	Sycamore (*Acer psudoplatanus*)	This standard tree is mature. Situated toward the west end of the tree line. There is a single branch tear facing northwest at approx. 1m.	Unsuitable. The cavity extends 40cm upward and is wet, with rough surrounds. Woodlice and slugs are present and suggest that the space would be suitable for bats, but there is no evidence of use.
T4	Sycamore (*Acer psudoplatanus*)	This standard tree is mature with two PRFs: 1 - A branch tear on facing northwest on a branch at 5m. 2 - A branch tear facing southeast at 5m on the main stem.	1 - Unsuitable. This PRF is very shallow with no capacity to support roosting bats. 2 – Unsuitable. This cavity extends upwards 5cm and downwards 10cm and the interior sides are rough and flaking. There is no evidence of use by bats.
T5	Sycamore (*Acer psudoplatanus*)	This standard tree is mature. There are three PRFs: 1 - A branch tear with facing west on the main stem at 4m. 2 & 3 - Two small knot holes in a branch at 4.5m facing west.	1 - Unsuitable. This PRF does not extend into a cavity and is unsuitable for roosting bats. 2 & 3 – Unsuitable. These PRFs are shallow and do not extend into a cavity.
T6	Sycamore (*Acer psudoplatanus*)	This standard tree is mature. There is a knot hole facing west on the main stem.	Unsuitable. The PRF extends 5cm down. The internal wood is rough. Woodlice are present showing there is some potential for bats, but the cavity is considered too shallow.

Showing the PRF in T1

Showing the PRF in T1

Showing the PRF in T2

Showing one of the PRF in T4



Showing one of the PRF in T4

Showing the PRF in T6

6. Bats: Summary of Findings and Assessment of Impact

6.1 Survey Findings and Value of the Site

6.1.1 The transect and static detector work undertaken in May and June 2023 showed that a total of six bat species were recorded on site at Shelley College. Three species were regularly recorded; common pipistrelle, soprano pipistrelle and noctule. Three species were rarely recorded; *Myotis* bat species, Daubenton's bat and *Nyctalus/Eptesicus* species.

6.1.2 The majority of the bat activity was associated with two species, common pipistrelle and soprano pipistrelle. Common pipistrelle is the most common on site and most frequently recorded.

6.1.3 The level of bat activity at the site is considered to be low. The number of calls recorded at peak for common pipistrelle is relatively low (173 over the course of a night). This suggests that the site is not a significant foraging ground or commuting route for soprano and common pipistrelle.

6.1.4 The transects undertaken on 2nd May and 5th June confirm this low level of activity and sporadic low levels of foraging by common pipistrelle bat.

6.1.5 There is no evidence of a bat roost on site or close to the survey site. The tree inspection showed that the potential roost features are currently unsuitable for roosting bats, with no evidence of use by bats. Overall, the site is considered to have low value for foraging and roosting bats.

6.2 Potential Impacts of the Proposals and Proposed Mitigation.

Potential Impacts

6.2.1 The proposals to install the 3G Sports Facility will result in the change of use of the land to the southwest of the school. The proposals will include installation of 6 no. sports lights around the facility.

6.2.2 Following the installation of the 3G Sports Facility, there will be a change of use of the space to the rear of the school, including potential increase in noise into the evening. Given the low level of bat activity, the alteration in noise levels is not considered likely to be significant.

6.2.3 A greater potential risk to disturbance of bats is the installation of flood lighting. The potential impacts upon the bat population of lighting, *without* mitigation or consideration are as follows:

- Potential disturbance to 2 species of commuting bats (common and soprano pipistrelle) and occasional disturbance to 4 species of bats that sporadically pass over the site.
- Displacement of foraging and commuting bats from the site.

6.2.4 These potential negative impacts are considered to be low at a site level and negligible at local level and above due to the low level of bat activity at the site and because the tree lines and hedgerows do not appear to provide a valuable foraging or commuting route.

Light Spill

6.2.5 The potential risks have been taken into consideration during the design of the Sports Facility. See Figure 6 extracted from Shelley College Floodlighting Layout. Sportslabs. Job no. 3011, 2022.

6.2.6 The 3G pitch will be located will be located 30m from the southwest woodland boundary and this wooded boundary will be outside the measurable light spill, which is measured at 5 lux at 12 m from the pitch to the southwest, thus retaining a dark corridor for bats.

6.2.7 The northwest tree line will be subject to 5 lux light spillage on the southeast side, although the far side of the tree line will remain darker.

6.2.8 The hedgerow to the southeast will be subject to 25 lux, which will render this corridor unfavourable for bats on the northwest side. The southeast side will be subject to less light.

LED Lighting

6.2.9 The lighting source is LED, which does not attract invertebrates and so should not attract larger bats to forage around the lighting (noctules are known to forage around lighting) and this will minimise the risk of altering the natural usage of the site by the bat assemblage at present.

Hours of Use

6.2.10 The hours of use are proposed as follows:

- Weekdays: 08:30 – 17:00
- Weekends: 08:00 – 21:00

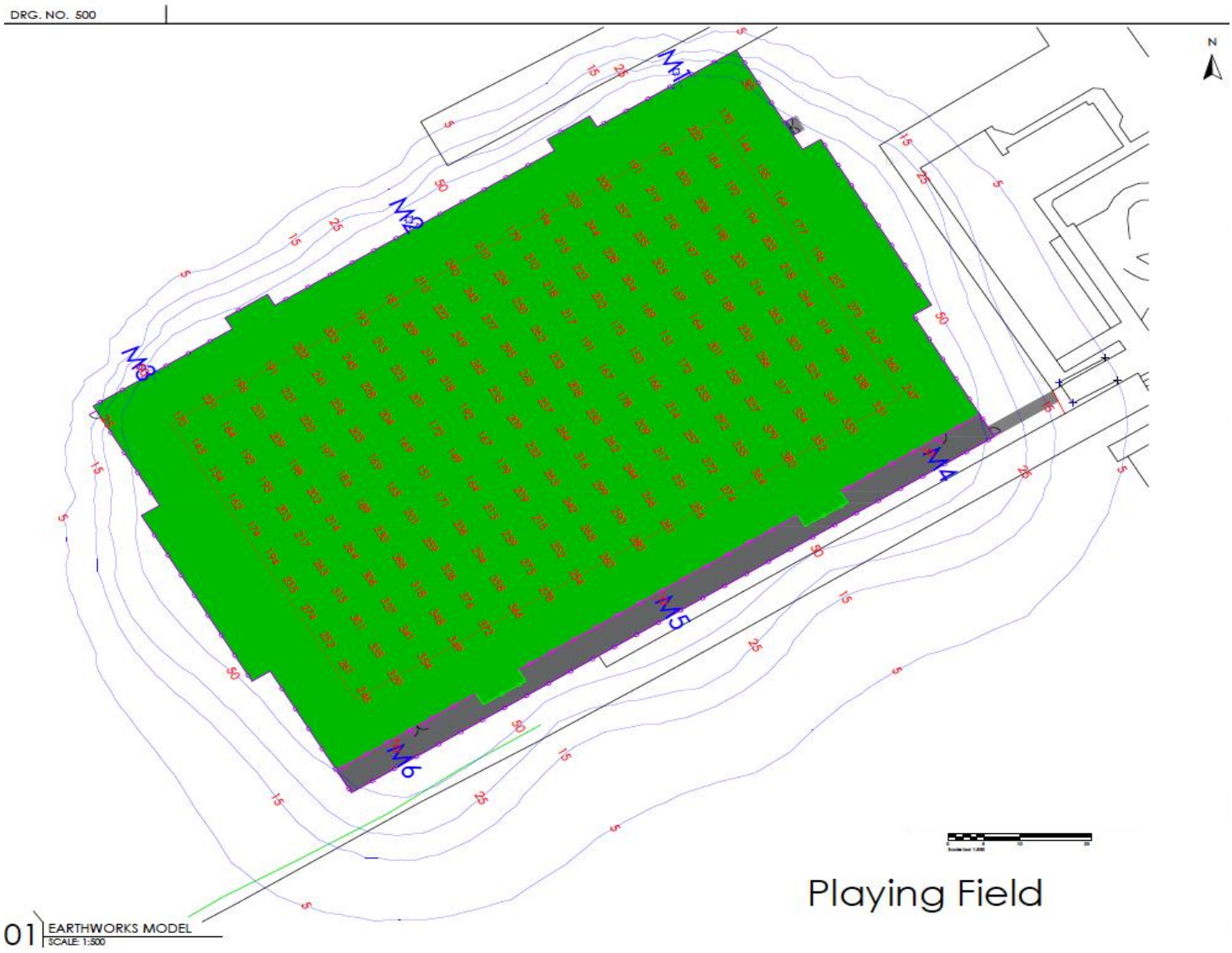
6.2.11 Bats hibernate over the winter months when the evenings are the shortest and use of the lighting over the winter period (November – March) will have a negligible impact upon bats in the area.

6.2.12 As bats emerge in the spring, they are likely to emerge from roosts within 30 minutes of sunset.

6.2.13 From mid-May, the time of sunset, and therefore the emergence time for bats, would be later than the time in which the Sports Facility will be in use, and so no disturbance to emergence of roosting bats is likely. For example, on 14th May sunset is 21:00 and on 4th August is 21:00. Emergence of bats throughout the summer Mid-May – early- August is likely to be outside the time of the use of the sports pitch.

6.2.14 Although early May and late-August may result in increased lighting, this will be limited to approximately 30 minutes of bat activity time. Given the low level of use of the site, this is not considered likely to be of significance to the viability and therefore the conservation status of species in the area.

Figure 6: Showing the Proposed Floodlighting and Light Spillage



Edited from Shelley College Floodlighting Layout. Sportslabs. Job no. 3011, 2022

7. Bats: Conclusion

7.1.1 Survey work at Shelley College was undertaken in the Spring and Summer 2023 to determine the use of the site by bats and how the proposed 3G Sports Facility may impact upon bats.

7.1.2 The survey work confirmed the presence of 6 bat species on site, but three species that were regularly recorded; common pipistrelle, soprano pipistrelle and noctule.

7.1.3 Common pipistrelle was the most frequently recorded, but the activity levels of this species and soprano pipistrelle, even in peak season, were low.

7.1.4 The survey data suggest that the hedgerow and tree lines around the proposed sports pitch are not regularly used as commuting routes and do not provide valuable foraging habitat.

7.1.5 For this reason, the proposals to install the 3G pitch are considered to have limited negative impact upon common and soprano pipistrelle bats. The most mature boundary, to the southwest, will be protected by a 30m buffer from the pitch. Although the southeast and northwest hedgerow/tree line will be somewhat impacted by lighting and noise, these impacts are not likely to impact the conservation status of the species.

7.1.6 The lighting will be LED and ‘in use hours’ are proposed to prevent unnecessary disturbance to bats during the spring and summer months.

7.1.7 Overall, if the above design and proposed mitigation is implemented, the proposals are expected to have very little impact upon commuting and foraging bats in the area.

7.1.8 Enhancement of the wider site as part of Biodiversity Net Gain will compensate in part for the degradation of the southeast and northwest hedgerow/tree line through the planting of woodland to the northwest, planting of hedgerow and creation of meadow.

Great Crested Newt Survey

8. GCN: Methodology

8.0.1 The Presence / Absence Surveys for great crested newt were undertaken in accordance with current accepted guidance: Great Crested Newt Mitigation Guidelines, English Nature, 2001.

8.1 Habitat Suitability Index

8.1.1 The Habitat Suitability Index assessment (Oldham *et al*, 2000) was used to determine the suitability of the waterbodies for great crested newt. The Habitat Suitability Index is based upon 10 suitability indices, all of which are factors known to affect the likely use of the waterbody by great crested newt, for example percentage shade, percentage emergent vegetation, the presence of fish and waterfowl, the area of suitable surrounding habitat and the presence of other waterbodies in the area.

8.1.2 Each water body within 250m of the survey site was evaluated according to these indices and scored between 0 and 1. Values close to 0 indicate unsuitable habitat, 1 represents optimal habitat.

8.2 Presence / Absence Survey for Great Crested Newts

8.2.1 In accordance with current guidance, three methods of detecting the presence of great crested newts were employed during the survey:

- Torch counts
- Egg searches
- Bottle trapping

8.2.2 A total of six survey visits are required to ensure sufficient survey effort to determine presence / absence and a population estimate for each of the waterbodies.

8.2.3 These survey visits were undertaken as follows:

Table 1: Survey Dates

Survey no.	Date	Survey Method
1	20/04/2023 pm 21/04/2023am	Bottle deploy / torch count Bottle trapping count / egg search
2	04/05/2023 pm 05/05/2023 am	Bottle deploy / torch count Bottle trapping count / egg search
3	18/05/2023 pm 19/05/2023 am	Bottle deploy / torch count Bottle trapping count / egg search
4	25/05/2023 pm 26/05/2023 am	Bottle deploy / torch count Bottle trapping count / egg search
5	01/06/2023 pm 02/06/2023 am	Bottle deploy / torch count Bottle trapping count / egg search
6	15/06/2023 pm 16/06/2023	Bottle deploy / torch count Bottle trapping count / egg search

Torch Counts

8.2.4 During each evening survey the margins of waterbodies WB2 and WB3 were searched for great crested newts and other amphibians with the use of a 1,000,000 candle power Cluson Clulite torch. The torch surveys were undertaken after dusk. A method of sweeping the torch light from the bank to the centre of the water body and back was employed to ensure full coverage and visibility of amphibians where possible. WB1 was only torched during the first survey due to turbidity, restrictions with nesting birds and proximity to residents.

Egg Search

8.2.5 Great crested newts lay eggs singly, folded within aquatic or overhanging vegetation. Searches within the marginal and overhanging vegetation were employed during each visit to the site in daylight

Bottle trapping

8.2.6 Bottle traps were deployed each evening at 2m intervals around the perimeter of the pond where access would allow.

8.2.7 28 bottle traps were deployed in WB1, 9 in WB2 and 5 in WB3.

8.2.8 WB1 was accessible around the margin, although proportion of the margin of the pond was too steep (5%) and bottle traps were not deployed in this area. A portion of dense bramble and scrub where coot were nesting was also avoided from 4th May.

8.2.9 WB2 was accessible around the entire perimeter.

8.2.10 WB3 was partially accessible. Approximately 50% of the banks were not accessible due to hawthorn scrub.

8.2.11 The traps were left over-night in the pond and removed early the following morning. All amphibians and invertebrates captured were recorded and released.

Showing a great crested newt from WB2 in a bottle trap

Population assessment

o

8.3 Survey Limitations

8.3.1 The survey work was undertaken at the optimum time of year to detect great crested newts in water bodies. There were restriction to access of WB1 and WB3 due to scrub vegetation, but for WB1 this was very limited (5% of margin) and for WB3 the restriction of 50% is considered during interpretation of the results.

8.3.2 WB1 could not be torch surveyed due to the turbidity, presence of nesting coot and potential disturbance late at night of the resident, but this was not considered necessary due to ability to bottle trap and egg search sufficiently.

Figure 4: Aerial map showing surrounding landscape and the survey water bodies, in relation to the survey site

9 GCN: Findings

9.0 Waterbodies

9.0.2 Three waterbodies (WB1-3) were surveyed as part of the Habitat Suitability Assessment and the Presence/Absence survey. Waterbody 4, the Cliffe Hill Reservoir is unlikely to be favourable for great crested newts, given the open nature of reservoirs with little vegetative cover and is not considered any further.

Water body WB1 Habitat Suitability Index

9.0.4 Waterbody 1 is approximately 2000m^2 and is located in a mature garden. There are some willow (*Salix*) trees around the boundaries with bramble (*Rubus fruticosus* agg.) scrub. There is approximately 20% macrophyte cover including water lily (*Nymphaea* sp.) and flag iris (*Iris pseudacorus*). Fish (carp and roach) are present in the waterbody, which significantly reduces the suitability for great crested newts, along with the regular presence of coot (*Fulica altra*) heron (*Ardea cinerea*) and occasionally mallard (*Anas platyrhynchos*).

9.0.5 There is little shade, with approximately 20% shade cast by mature trees. The water quality is considered to be moderate.

Water body WB2 Habitat Suitability Index

9.0.7 Waterbody 2 is approximately 30m^2 and is located in rough vegetation (grassland and scrub) near the school grounds. There is approximately 90% macrophyte comprising bog bean (*Menyathes trifoliata*). The water is clear with numerous aquatic invertebrates.

9.0.8 There is approximately 35% shade cast by mature trees. The water quality is considered to be good.

Water body WB3 Habitat Suitability Index

9.0.10 Waterbody 3 is approximately 40m^2 and is located in rough vegetation (grassland and scrub) near the school grounds. There is approximately 95% macrophyte comprising bog bean. The water is clear, but with signs of nutrient enrichment/pollutant, likely form run-off from the adjacent field.

9.0.11 There is approximately 85% shade cast by surrounding trees and shrubs. The water quality is considered to be moderate.

9.1 Records of Great Crested Newt in the Area

9.1.1 Data from WYES contains records of great crested newts within close proximity to the survey site.

9.2 Presence / Absence Survey Results

Water body WB1

Table 2: Summary of Survey Results

9.2.1 The full results of the great crested newt surveys are shown in Appendix B.

9.2.3 The presence of eggs in WB2 and WB3 confirm breeding in these waterbodies. The poor suitability of WB1, given the presence of carp, roach and moorhen is the reason for the low numbers of great crested newt recorded and the likely absence of breeding in this waterbody.

10 GCN: Summary of Findings and Assessment of Impact

10.1 Impact assessment

10.1.1 Assessment of the risk to great crested newts is based upon knowledge of potential risks to great crested newts as a result of the proposed development procedures, reflecting the Natural England Rapid Risk Assessment (Natural England, 2000). The following factors are considered:

- The degree of impact upon breeding ponds
- The degree of Impact upon suitable terrestrial habitat within 250m of breeding ponds.
- Risk of harm to individual great crested newts during works.
- Potential indirect risk on individual animals following development (eg potholes, increased traffic or creating a barrier to dispersal).

10.1.2 Under the assumption that great crested newt are present in the locality, the following applies:

The degree of impact upon breeding ponds

Risk of harm to individual great crested newts during works

10.1.8 It is proposed that in this case the works will take place with Reasonable Avoidance Measures (RAMS) in place to minimise the risk of harm to individual animals. This reduces the likelihood of harm to individual great crested newt to negligible.

Potential indirect risk on individual animals following development (eg potholes, increased traffic or creating a barrier to dispersal).

10.1.9 No potential indirect negative impacts are anticipated. The proposed construction of the sports pitch, whilst it will result in the loss of 0.2ha of modified grassland, will not result in any alteration to the accessibility of the surrounding landscape to great crested newt.

11 GCN: Conclusion

12 Mitigation and recommendations

12.0 Reasonable Avoidance Measures (Method Statement)

12.0.1 There is potential for great crested newts to be present in the surrounding area. In order to reduce the risk of harm to individual great crested newts to negligible, the following must be undertaken:

- A Toolbox Talk (See Appendix C) on great crested newts, identifying the potential risk of presence, the legislation covering the species, how to proceed with works and what to do if great crested newts are found will be delivered to site operatives prior to the start of works by an ecologist.
- Amenity grassland within the garden will be maintained at the existing short length to deter wildlife from entering the area of works.
- A fingertip search will be undertaken by a suitably licenced ecologist the day and evening prior to the start of works.
- Initial ground works will be undertaken with care, by hand; top-soil removed must be done so with care whilst checking for the presence of great crested newts and other wildlife.
- If great crested newts are discovered, works must stop and an ecologist must be contacted for advice.
- Construction materials will be stored on pallets or hard standing at all times. This minimises the risk of great crested newts utilising the stored materials for shelter.
- All machinery will be stored on hard standing and not on the playing field.

  Please note that if great crested newts are found during works, all works must stop and it may be necessary to obtain a European Protected Species Mitigation (EPSM) licence prior to proceeding.

12.0.2 The Reasonable Avoidance Measures undertaken for great crested newts will also ensure the protection from harm of common reptiles and common toad.

13 References

- Bing Maps (Accessed 2023) https://www.bing.com/maps/
- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management.
- Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edn). The Bat Conservation Trust, London.
- Google maps (Accessed 2023) https://www.google.co.uk/maps
- ILP (2018) Bats and Artificial Lighting in the UK: Bats and the Built Environment Series. Institution of Lighting Professionals.
- MAGIC (Accessed 2023) https://magic.defra.gov.uk/About_MAGIC.htm. Natural England.
- ARG UK Advice Note 5 Great Crested Newt Habitat Suitability Index, May 2010
- English Nature (2001) Great Crested Newt Mitigation Guidelines ..
- MAGIC Map (2014) http://www.natureonthemap.naturalengland.org.uk
- Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), Great Crested Newt Conservation Handbook, Froglife, Halesworth
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). Herpetological Journal 10(4), 143-155.

• APPENDIX A: Wildlife Legislation and Planning Policy

1.0 UK AND EU LEGISLATION

KEY LEGISLATION

In the UK, the following legislation relates to wildlife and habitats:

- Wildlife and Countryside Act 1981 (as amended)
- The Countryside and Rights of Way Act (CROW), 2000
- The Badger Act 1992
- The Natural Environment and Rural Communities Act (NERC, 2006)
- Conservation of Habitats and Species and Plannning (Various Amendments) (England and Wales) Regulations (2018)
- The Hedgerow Regulations (1997)

1.1 WILDLIFE AND COUNTRYSIDE ACT 1981 (AS AMENDED)

1.1.1 The Wildlife and Countryside Act 1981 consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)).

BIRDS

1.1.2 **The Act makes it an offence (with exception to species listed in Schedule 2) to intentionally:**

- kill, injure, or take any wild bird,
- take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural Communities Act 2006), or
- take or destroy an egg of any wild bird.

Schedule 1 birds

1.1.3 Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young, for example Barn Owl and Red Kite.

Areas of Special Protection for Birds

1.1.4 The Secretary of State may also designate Areas of Special Protection (subject to exceptions) to provide further protection to birds.

Other offences

1.1.5 The Act also prohibits certain methods of killing, injuring, or taking birds, restricts the sale and possession of captive bred birds, and sets standards for keeping birds in captivity.

OTHER ANIMALS

1.1.6 The Act makes it an offence (subject to exceptions) to intentionally ([or recklessly] - only under the Nature Conservation (Scotland) Act 2004) kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals.

1.1.7 For animals listed in Schedule 5 of the act, it is an offence under:

- Section 9(1) to kill, injure or take the animal by any method
- Section 9(2) to possess or control a dead or live animal (or part of derivative).
- Section 9(4)(a) to cause damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection.
- Section 9(4)(b) to disturb any animal on the schedule occupying such as structure or place.
- Section 9(4)(c) to obstruct access to any structure or place which any such animal uses for shelter or protection.

- Section 9(5)(a) to sell, offer or expose for sale, possess or transport for the purpose of sale, any live or dead wild animal, or part or derivative of an animal included in Schedule 5.

- Section 9(5)(b) to publish or cause to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.

Species that receive FULL PROTECTION under the act:

- All UK bats
- Otter
- Water vole
- Dormouse
- Red squirrel
- Wildcat
- Reptiles – Smooth snake and sand lizard
- Amphibians – Great crested newt, Natterjack toad, Pool frog
- Invertebrates – some including, but not restricted to Swallowtail butterfly, Marsh fritillary butterfly, Large copper butterfly, Heath fritillary butterfly, Large blue butterfly, Barberry carpet moth, Rainbow leaf beetle, Violet click beetle, Medicinal leech.

Species that protected from intentional KILLING, INJURY and SALE only:

- Reptiles – widespread species; Common lizard, Slow-worm, Grass snake and Adder.

Species protected from TAKING and SALE only:

- Atlantic stream (white-clawed) crayfish

Species protected from SALE only:

- Common toad
- Common frog
- Palmate newt
- Smooth newt
- Invertebrates – Some including 18 butterflies such as Chalk hill blue butterfly, Adonis blue butterfly, Large tortoiseshell butterfly.

Vascular Plants, Bryophytes, Lichens and Fungi (PLANTS)

1.1.8 For any vascular plant, bryophyte, lichen or fungi listed in Schedule 8 of the Act, it makes it an offence under:

- Section 13(1)(a) to Intentionally pick, uproot or destroy plants in Schedule 8.
- Section 13(1)(b) to undertake unauthorised intentional uprooting of any wild plant not included in Schedule 8.
- Section 13(2)(a) to sell, offer for sale, posess or transport for the purpose of sale any plant (live or dead, part or derivatives) on Schedule 8.
- Section 13(2)(b) to publish or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.

1.1.9 Species with protection under Schedule 8 include, but are not restricted to:

1.1.10 Bluebell, Wood calamint, Rock chinquefoil, Early spider orchid, Spring gentian, Stinking goosefoot, Small hare's-ear, Alpine copper moss (*Mielichoferia mielichoferi),* Goblin lights lichen (*Catolechia wahlenbergii*).

Non-Native Species

1.1.11 Species listed in Schedule 9 of the Act are non-native species, which the establishment of in the wild may be detrimental to native wildlife. Species listed in Schedule 9 include Japanese knotweed, Himalayan Balsam and Giant hogweed.

1.1.12 For species listed in Schedule 9 of the act it is an offence:

- Under Section 14(1) if any person releases or allows to escape into the wild any animal which—

  (a) is of a kind which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state; or

  (b) is included in Part I of Schedule 9,

- Under Section 14ZA (1) to sell, offers or exposes for sale, or has in his possession or transports for the purposes of sale an animal or plant to which this section 14 applies, or anything from which such an animal or plant can be reproduced or propagated.
- Under Section 14ZA (2) to publish or cause to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell an animal or plant to which this section applies, or anything from which such an animal or plant can be reproduced or propagated.

1.1.13 Section14ZB gives the Secretary of State the power to issue codes of practice, or approve a code of practice issued by others, relating to non-native animal and plant species. It is intended that the codes will be used to provide recommendations, advice and information on how to stop the damage caused by non-native animals and plants.

1.2 SITES OF SPECIAL SCIENTIFIC INTEREST (SSSIs) AND OTHER PROTECTED AREAS

1.2.1 Sections 28 to 33 of Part 2 of the Wildlife and Countryside Act detail the law regarding SSSIs.. Sections 34 to 53 deal with other protected areas within Great Britain.

- The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) – these sites are identified for their flora, fauna, geological or physiographical features – by the country conservation bodies in England (Natural England) and Wales (Natural Resources Wales).
- The Act also contains measures for the protection and management of SSSIs.
- The Act provides for the making of Limestone Pavement Orders, which prohibit the disturbance and removal of limestone from such designated areas
- The Act provides means for the designation of Marine Nature Reserves.
- The Act prohibits the undertaking of agricultural or forestry operations on land within National Parks which has been either moor or heath for 20 years, without consent from the relevant planning authority.

1.3 THE COUNTRYSIDE AND RIGHTS OF WAY (CROW) ACT 2000

1.3.1 The Countryside and Rights of Way Act 2000 strengthened the Wildlife and Countryside Act 1981 in the following ways:

Schedule 12

1.3.2 Schedule 12 of the Act amends the species provisions of the Wildlife and Countryside Act 1981 and strengthens the legal protection of species by:

- Providing provisions to make certain offences 'arrestable'
- Changing the term ‘intentional’ to ‘reckless’ with regard to disturbance offences, such that ignorance of the law is no longer a defence.
- Conferring greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and;
- Enabling heavier penalties on conviction of wildlife offences.

Schedule 9

1.3.3 Schedule 9 of the Act amends SSSI provisions of the Wildlife and Countryside Act 1981, including provision to change SSSIs and providing increased powers for their protection and management, placement of a duty on public bodies to further the conservation and enhancement of SSSIs and increases in penalties on convictions where the provisions are breached.

1.4 THE BADGER ACT 1992

1.4.1 Under the Badger Act 1992, it is an offence to:

- Section 1 – Take, injure or kill a badger, or attempt to do so
- Section 2 – Cruelly ill-treat a badger, inclusive of digging for a badger
- Section 3 – Interfere with a badger sett. A person is guilty of an offence if, except as permitted by or under this Act, he interferes with a badger sett by doing any of the following things—

  (a)damaging a badger sett or any part of it;

(b)destroying a badger sett;

(c)obstructing access to, or any entrance of, a badger sett;

(d)causing a dog to enter a badger sett; or

(e)disturbing a badger when it is occupying a badger sett,

- Section 4 – To sell or possess a live badger.
- Section 5 – To mark or ring a badger unless under licence to do so.

1.5 THE HEDGEROWS REGULATIONS, 1997

1.5.1 The Hedgerows Regulations, 1997 ensure the protection from damage or desturction of 'important' hedgerows. Criterial within the regulations detemine the importance.

1.6 THE CONSERVATION OF HABITATS AND SPECIES AND PLANNING (VARIOUS AMENDMENTS) (ENGLAND AND WALES) REGULATIONS 2018

1.6.1 In addition to the Wildlife and Countryside Act 1984, certain species have additional protection under European Law.

1.6.2 The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2018 (the Habitats Regs) consolidate the amendments made to the Conservation (Natural Habitats. &c.) Regulations 1994 in England and Wales. The Regulations transpose the Council Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora (EC Habitats Directive) into UK law.

1.6.3 The Habitats Regulations 2010 provide protection for 'European Protected Species' and protection and designation for 'European Protected Sites'.

Schedule 2: European Protected Species of Animals

- All UK bats
- Dormice
- Otter
- Large blue butterfly
- Wild cat
- Sand lizard
- Smooth snake
- Great crested newt
- Natterjack toad
- Fishers estuarine moth
- Lesser whirlpool ram'- horn snail
- Sturgeon
- Marine turtles
- All dolphins, porpoises and whales.

1.6.4 For species listed in Schedule 2, Under Part 3 Regulation 41(1) it is an offence to

(a) deliberately capture, injure or kill any wild animal of a European protected species,

(b) deliberately disturb a wild animal of any such species,

(c) deliberately take or destroy the eggs of such an animal, or

(d) damage or destroy a breeding site or resting place of such an animal,

1.6.5 Under Part 3 Regulation 41 (2) For the purposes of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely—

(a) to impair their ability—

(i) to survive, to breed or reproduce, or to rear or nurture their young, or

(ii)i n the case of animals of a hibernating or migratory species, to hibernate or migrate; or

(b) to affect significantly the local distribution or abundance of the species to which they belong.

Under Part 3 Regulation 41.(3) It is an offence for any person—

(a)to be in possession of, or to control,

(b) to transport,

(c) to sell or exchange, or

(d) to offer for sale or exchange any animal in Schedule 2.

Schedule 5: European Protected Species of Plants

- Shore dock
- Killarney Fern
- Early Gentian
- Lady's-slipper
- Creeping marshwort
- Slender naiad
- Fen orchid
- Floating-leaved water plantain
- Yellow-marsh saxifrage.

1.6.6 For species listed in Schedule 2, Under Part 3 Regulation 45(1) It is an offence deliberately to pick, collect, cut, uproot or destroy a wild plant of a European protected species.

1.6.7 Under Part 3 Regulation 45(1) (2) It is an offence for any person

(a) to be in possession of, or to control,

(b) to transport,

(c) to sell or exchange, or

(d) to offer for sale or exchange any plant in Schedule 5

European Designated Sites

1.6.8 These include:

- Special Protection Areas – SPAs are classified in accordance with Article 4 of the EC Birds Directive for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species
- Special Areas of Conservation – SACs are classified in accordance with Article 3 of the EC Habitats Directive. SACs are designated to establish a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended).

1.6.9 Natura 2000 is the name of the European Union-wide network of nature conservation sites established under the EC Habitats and Birds Directives. This network will comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Marine Natura 2000 sites contribute to our ecologically coherent network of marine protected areas.

1.7 NATURAL ENVIRONMENT AND RURAL COMMUNITIES (NERC) ACT 2006

Planning Authorities: A Duty to Conserve Biodiversity

1.7.1 Under this legislation, planning authorities are obliged to make sure that they have all the information on the presence of protected species on site *before* they make a decision on the planning permission.

1.7.2 Part 2, Section 40 confers on the planning authorities a duty to conserve biodiversity and states:

''*Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of biodiversity*''

Species of Principal Importance

1.7.3 Part 3, Section 41 requires the Secretary of State to ''*publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of* ***principle importance*** *for the purpose of conserving biodiversity*''.

1.7.4 This requirement lead to production of a list of species and habitats of Principal Importance, which should be a material consideration during the planning process.

1.8 DESIGNATED SITES OF CONSERVATION INTEREST

1.8.1 Sites of conservation interest can be designated on a statutory or non-statutory basis.

Statutory Sites

1.8.2 Statutory sites can be designated under UK legislation (the Widlife and Countryside Act 1981), European Law (the Habitats Regulations 2010) or International law (Ramsar Convention).

1.8.3 The designated sites are referred to under the relevant legislation above.

1.8.4 UK designated sites include Sites of Special Scientific Interest (SSSIs).

1.8.5 European designated sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

1.8.6 Ramsar sites are wetlands of international importance designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971.

1.8.7 Local Nature Reserves (LNRs): Under the National Parks and Access to the Countryside Act 1949 LNRs may be declared by local authorities after consultation with the relevant statutory nature conservation agency. LNRs are declared and managed for nature conservation, and provide opportunities for research and education, or simply enjoying and having contact with nature.

1.8.8 National Nature Reserves (NNRs): are declared by the statutory country conservation agencies under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981.

Non-Statutory Sites

1.8.9 Local authorities for any given area may designate certain areas as being of local conservation interest. The criteria for inclusion, and the level of protection provided, if any, may vary between areas. Most individual counties have a similar scheme, although they do vary.

1.8.10 These sites, which may be given various titles such as 'Listed Wildlife Sites' (LWS), 'Local Nature Conservation Sites' (LNCS), 'Sites of Importance for Nature Conservation' (SINCs), 'Biological Heritage Sites' (BHS) or 'Sites of Nature Conservation Importance' (SNCIs), together with statutory designations, are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined.

2.0 Plans and Policies

In the UK, the following plans and policies relate to wildlife and habitats:

- National Planing Policy Framework (NPPF, 2018)
- The Natural Environment White Paper 'The Natural Choice: Securing the Value of Nature'
- Biodiversity – The UK Action Plan (1994, and subsequent revisions)
- Local Biodiversity Action Plans where applicable
- Neighbourhood plans where applicable

NATIONAL PLANNING POLICY FRAMEWORK

2.1.1 In March 2012 the Government introduced the National Planning Policy Framework (NPPF). This was revised in 2018.

Chapter 15: Conserving and Enhancing the Natural Environment

Chapter 15, Para 170 of NPPF states: *''The planning system should contribute to and enhance the natural and local environment by:*

b) ***protecting and enhancing valued landscapes, sites of biodiversity*** *or geological value and soils….*

e) ***minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures***".

Para 171 states: "*Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.''*

Para 174 identifies that plans should do the following to protect and enhance biodiversity and geodiversity:

c) "***Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and***

stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

d) ***Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and peruse opportunities for securing measurable net gains for biodiversity.*****"**

Para 175 states that "*when determining planning applications, local authorities should apply the following principles:*

b) ***if significant harm to biodiversity from a development cannot be avoided…,adequately mitigated, or, as a last resort compensated for, then planning permission should be refused*****'**'

c) ***Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted.*** *The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

d) ***Development result in the loss of deterioration of irreplaceable habitats (such as ancient woodland or ancient or veteran trees) should be refused,*** *unless there are wholly exceptional reasons and a suitable compensatory strategy exists; and*

e) ***Development whos primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.***

Para 177 states "*the presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined*."

2.2 ODPM CIRCULAR 06/2005: BIODIVERSITY AND GEOLOGICAL CONSERVATION

2.2.1 This document, to be read in conjunction with NPPF provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It makes it clear that it is the intention of the government that local authorities and developers consider protected species at the earliest possible stage in the planning process. Any planning application that is likely to affect protected species should come with details of the surveys which have been undertaken and should include, if necessary, recommendations for mitigation. Applications which do not include sufficient data should be rejected.

2.3 The Natural Environment White paper

2.3.1 The Natural Environment White Paper 'The Natural Choice: Securing the Value of Nature' states that 'We want to create a resilient and *coherient ecological network at national and local levels across England… To make this happen the government will put in place a clear institutional framework to support nature restoration. This means: establishing Local Nature Partnerships… Creating new Nature Improvement Areas (NIAs) and strengthening support though the planning system*.'

Biodiversity Offsetting

2.3.2 Biodiversity offsetting is described in the Natural Environment White Paper as 'conservation activities designed to deliver biodiversity benefits in compensation for losses in a measurable way. Good developments incorporate biodiversity considerations in their design but are still likely to result in some biodiversity loss. One way to compensate for this loss is by offsetting: the developer secures compensatory habitats elsewhere.'

2.3.3 The level of biodiversity offsetting required could be determine by means of assessments undertaken in accordance with the Department for Environment, Food and Rural Affairs (DEFRA) metric contained in Biodiversity Offsetting Pilots published in March 2012 as applied in the Defra offsetting pilot projects. Biodiversity offsetting could be delivered by developers in partnership with various partners including conservation organisations, local landowners and the borough council.

2.4 Biodiversity Action Plan (Local or UK)

UK Biodiversity Action Plan

2.4.1 Biodiversity: The UK Action Plan outlines how the UK plans to address biodiversity conservation in response to the Rio Convention on Biological Diversity (1992). In 2004 a UK Biodiversity Steering Group was formed and discussions resulted in the publication of 'Biodiveristy: the UK Steering Group Report – meeting the Rio challenge', which established a framework and criteria for identifying species and habitats of conservation concern. From this list, action plans for 391 species and 45 broad habitat types were prepared. In 2007, the UK List of Priority Species and Habitats was reviewd and the revised list identifies 1149 species and 65 habitats requiring conservation action.

2.4.2 These species are now listed in Section 41 of the NERC Act, 2006 and referred to as Habitats and Species of Principal Importance (HPI or SPI).

2.4.3 Outcome 3 of the Government's Biodiversity 2020 strategy (DEFRA, 2011) contains an ambition to ensure that "*By 2020, we will see an overall improvement in the status of our wildlife and will have prevented further human-induced extinctions of known threatened species*". Protecting and enhancing England's Species and Habitats of Principal Importance is key to delivering this outcome.

Local Biodiversity Action Plans

2.4.4 Local Biodiversity Action Plans (LBAPs) are a means for delivering UK Biodiversity Action Plan targets at a local level. LBAPs were launched in 1997 by a partnership of conservation groups, government agencies and local authorities. They set out a framework for nature conservation in the specified area. This framework includes priority species and habitats and sets targets to maintain and enhance their conservation status.

2.5 Other Species Lists of Species of Conservation Concern

2.5.1 Species lists of Species of Conservation Concern also considered within this assessment are as follows:

- Birds of Conservation Concern: Based on an assessment of the conservation status of British birds. Following an assessment of data on population and trends against established criteria, there are red, amber and green lists of BoCC. The latest review was BOCC 4 (Eaton et al, 2015)

Red Data Book Species: In 1999 the Species Status Assessment project (JNCC) assigned conservation status to the UK flora and fauna using g the internationally approved IUCN Red Data Book criteria and categories. The reviews were published in a series of data sheets and assigned a conservation status to each species.

APPENDIX B: Presence / Absence Survey Results

Results Table 1: Showing the environmental conditions

Survey visit	Date	Survey Method	Start time	Stop time	Air Temp °C	Water turbidity 0-3	Vegetation cover 0-5	Water Temp °C
1	20/04/2023 pm 21/04/2023am	Bottle deploy / torch count Bottle trapping count / egg search	19:30 21:20 7:30	21:00 22:15 9:10	7.5 °c 7.1°c	WB1: 3 WB2: 0 WB3: 0	WB1: 2 WB2: 4 WB3: 3	11.2 °c 11°c
2	04/05/2023 pm 05/05/2023 am	Bottle deploy / torch count Bottle trapping count / egg search	19:00 20:45 7:30	20:45 21:30 9:00	8.3°c 7.8°c	WB1: 3 WB2: 0 WB3: 0	WB1: 2 WB2: 4 WB3: 3	11°c 10.3°c
3	18/05/2023 pm 19/05/2023 am	Bottle deploy / torch count Bottle trapping count / egg search	19:30 21:15 7:00	20:50 22:00 8:30	10.4 °c 9.8 °c	WB1: 3 WB2: 0 WB3: 0	WB1: 2 WB2: 4 WB3: 3	14.4 °c 13°c
4	25/05/2023 pm 26/05/2023 am	Bottle deploy / torch count Bottle trapping count / egg search	19:40 21:25 7:00	21:00 22:10 8:30	16.4°c 13.6°c	WB1: 3 WB2: 0 WB3: 0	WB1: 2 WB2: 5 WB3: 4	11.4°c 11.2°c
5	01/06/2023 pm 02/06/2023 am	Bottle deploy / torch count Bottle trapping count / egg search	19:40 21:30 7:00	20:10 22:10 8:30	13.3°c 9.6°c	WB1: 3 WB2: 0 WB3: 0	WB1: 2 WB2: 5 WB3: 4	12.1°c 10.9°c
6	15/06/2023 pm 16/06/2023	Bottle deploy / torch count Bottle trapping count / egg search	19:40 21:45 7:30	21:00 22:25 8:30	22.1°c 19.3°c	WB1: 3 WB2: 0 WB3: 0	WB1: 2 WB2: 5 WB3: 4	14°c 13.8°c

Results Table 2: Waterbody 1

Survey	Date	Survey Method
1	20/04/23 pm	Torch count
	21/04/23 am	Bottle trapping count
	21/04/23 am	Egg search
		Notes:
2	04/05/23 pm	Torch count
	05/05/23 am	Bottle trapping count
	05/05/23 am	Egg search
		Notes:
3	18/05/23 pm	Torch count
	19/05/23 am	Bottle trapping count
	19/05/23	Egg search
		Notes:
4	25/05/23 pm	Torch count
	26/05/23 am	Bottle trapping count
	26/05/23 am	Egg search
		Notes:
5	01/06/23 pm	Torch count
	02/06/23 am	Bottle trapping count
	02/06/23 am	Egg search
		Notes:
6	15/06/23 pm	Torch count
	16/06/23 am	Bottle trapping count
	16/06/23 am	Egg search
		Notes:

KEY: M = Male F = Female L = Larva Blank= absent/zero

Results Table 3: Waterbody 2

Survey	Date	Survey Method
1	20/04/23 pm	Torch count
	21/04/23 am	Bottle trapping count
	21/04/23 am	Egg search
		Notes:
2	04/05/23 pm	Torch count
	05/05/23 am	Bottle trapping count
	05/05/23 am	Egg search
		Notes:
3	18/05/23 pm	Torch count
	19/05/23 am	Bottle trapping count
	19/05/23	Egg search
		Notes:
4	25/05/23 pm	Torch count
	26/05/23 am	Bottle trapping count
	26/05/23 am	Egg search
		Notes:
5	01/06/23 pm	Torch count
	02/06/23 am	Bottle trapping count
	02/06/23 am	Egg search
		Notes:
6	15/06/23 pm	Torch count
	16/06/23 am	Bottle trapping count
	16/06/23 am	Egg search
		Notes:

KEY: M = Male F = Female L = Larva Blank= absent/zero

Results Table 4: Waterbody 3

Survey	Date	Survey Method
1	20/04/23 pm	Torch count
	21/04/23 am	Bottle trapping count
	21/04/23 am	Egg search
		Notes:
2	04/05/23 pm	Torch count
	05/05/23 am	Bottle trapping count
	05/05/23 am	Egg search
		Notes:
3	18/05/23 pm	Torch count
	19/05/23 am	Bottle trapping count
	19/05/23	Egg search
		Notes:
4	25/05/23 pm	Torch count
	26/05/23 am	Bottle trapping count
	26/05/23 am	Egg search
		Notes:
5	01/06/23 pm	Torch count
	02/06/23 am	Bottle trapping count
	02/06/23 am	Egg search
		Notes:
6	15/06/23 pm	Torch count
	16/06/23 am	Bottle trapping count
	16/06/23 am	Egg search
		Notes:

KEY: M = Male F = Female L = Larva Blank= absent/zero

- **APPENDIX C:**

Toolbox Talk: Great Crested Newts

What are Great Crested Newts?

Great crested newts (*Triturus cristatus*) are amphibians native to Europe. They are found across the UK.

Being amphibious, they breed in water (ponds), but spend the majority of their life cycle on land. They are found in lowland areas where there is a network of water bodies.

The terrestrial habitat they like includes grassland, woodland and scrub.

They are nocturnal and so move around at night.

They hibernate in the winter months in cracks and crevices in the ground, including places like under paving slabs and grass hummocks.

Why do we need to do this?

Great crested newts are our most strictly protected amphibian. They are protected under the Wildlife and Countryside Act 1981, which is UK law, and are also protected under the Habitats Regulations 2010, which is European law.

They are protected because they have undergone considerable decline in the last century across Europe. The UK is a strong hold for this species, which is why so many people are surprised to find that they seem to be 'everywhere' but this is all the more reason to protect them.

The reason they are declining is because of:

- Destruction of ponds
- Pond loss through natural succession (poor management)
- Chemical pollution and nitrification of breeding sites
- Loss of terrestrial habitat
- Habitat fragmentation (or creation of barriers)
- Habitat management that renders the environment unsuitable for this species.

To counter these factors, there is a need to conserve and enhance great crested newt populations.

How do we undertake the work to minimise the risk of harm?

The aim is to minimise the risk of harm to amphibians.

The easiest way to minimise harm is to have all operatives aware of the species and to ensure the majority of works are undertaken by hand.

Use of machinery should be avoided if at all possible.

The reasonable avoidance methods for this site are as follows:

- Grass within the garden is maintained at its existing short length during the period of works
- All works to remove ground vegetation, debris or materials such as paving slabs on the ground will take place where possible by hand, with care.
- Construction materials must be stored on pallets or hard standing where possible. This will minimise the risk that great crested newts will use them to find shelter or to hibernate.
- The movement of any machinery on the grassland will be restricted to mown areas and the area used will be minimised to reduce ground disturbance.
- A plank or other material must be placed in all holes or ditches created and left over-night to enable any animals to climb out.

What do I do if I find a great crested newt or another animal?

Leave it alone if you can, let it move into cover of its own volition – if it is in an area that you will no longer be working in.

If it doesn't move, or there is risk you will disturb the animal again, you can move it by hand into a suitable location out of the way of the works.

A suitable area would be long grass with some scrub and some cover / protection.

If in doubt phone Verity: 07917 852401.