



**LAND ADJACENT TO THE REDGATE
DEPOT, WATLING STREET, NUNEATON.**

OS REF: SP 35066 95837.

PRELIMINARY ECOLOGICAL APPRAISAL.

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TABLE OF CONTENTS.

	Page Number
1. INTRODUCTION.	3
2. SURVEY METHODOLOGY.	4
3. SURVEY RESULTS.	7
4. EVALUATION OF FINDINGS.	16
5. RECOMMENDATIONS.	18
6. REFERENCES.	20
Appendix I. NESTING BIRD INFORMATION.	21
Appendix II. REPTILE INFORMATION.	22
Appendix III. GREAT CRESTED NEWT INFORMATION.	24
Appendix IV. ANNOTATED MAP OF THE SURVEY AREA.	26
Appendix V. TARGET NOTES.	27
Appendix VI. PROPOSED LAYOUT.	28

1. INTRODUCTION.

1.1. The owners of the Redgate Depot on Watling Street, Nuneaton, have plans to add an extra storage facility to the west of the existing one.

1.2. Whitcher Wildlife Ltd has therefore been commissioned to carry out a Preliminary Ecological Appraisal of the site to establish whether there are any other issues that may affect the proposed works.

1.3. The survey was carried out on 12th July 2023. This report outlines the findings of all surveys and makes appropriate recommendations.

1.4. Appendices I to III of this report provide additional information on specific species and are designed to assist the reader in understanding the contents of this report.

2. SURVEY METHODOLOGY.

2.1. Prior to visiting the site, the survey area was cross referenced to maps and aerial photographs to give a general idea of the habitats and potential issues within the area and to identify potential access and walking routes.

2.2. The survey area was walked where access was agreed and public rights of way were used where no access was agreed. All habitats within and immediately around the survey area were documented and the dominant species within that habitat listed in line with the UK Habitat Classification methodology to identify the primary habitat types throughout the survey area. All primary habitats are accompanied by secondary codes which are used to add further specific details where necessary. Each primary habitat and unique set off secondary codes will be shown individually in the appended annotated map.

2.3. The survey area and immediate surrounding area was thoroughly searched for evidence of badger (*Meles meles*) activity by looking for the following signs in line with Harris S, Cresswell P and Jefferies D (1989). *Surveying Badgers*. Mammal Society: -

- * Badger setts.
- * Badger latrines or dung pits.
- * Badger snuffle holes and evidence of foraging.
- * Badger paths.
- * Badger prints in areas of soft mud.
- * Badger hairs caught on fencing.

2.4. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 100m in each direction were thoroughly searched for evidence of water vole (*Arvicola amphibius*) activity by looking for the following signs, in line with Dean M, Strachen R, Gow D and Andres R (2016). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)*. Eds Fiona Mathews and Paul Chanin. The mammal Society, London: -

- * Water vole burrows.
- * Water vole faeces and latrines.
- * Water vole feeding stations.
- * Water vole runs.
- * Water vole prints in areas of soft mud.
- * Water vole lawns.
- * Predator field signs.

2.5. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 50m in each direction were thoroughly searched for evidence of otter (*Lutra lutra*) activity by looking for the following signs in line with the P Chanin (2003). *Monitoring the Otter and Conserving Natura 2000 Rivers: Monitoring Series No10 Guidelines*: -

- * Otter prints in soft mud.
- * Otter spraints.
- * Otter Holts.

2.6. The survey area was searched for watercourses and waterbodies. Where found, and where safe to enter the water, all were thoroughly searched for the presence of crayfish, for approximately 50m in each direction of the site, by searching under rocks and logs. Where stated, crayfish traps were also deployed into the watercourse. All survey work was carried out in accordance with the *Conserving Natural 2000 Rivers Monitoring Series No 1, Protocol for Monitoring the White Clawed Crayfish*.

2.7. The survey area was searched for trees and structures and where found these were checked for potential bat roosting sites in line with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)* by looking for the following signs: -

- * Holes, cracks or crevices.
- * Bat Droppings.

2.8. The land immediately adjacent to the survey area was assessed for bat roosting potential and bat foraging potential. Connective routes and flight lines were also assessed whilst on site and using maps of the area.

2.9. The area within 500m of the survey site was cross referenced to maps to highlight all ponds close to the site. Where possible, all ponds identified were accessed using agreed access or public rights of way to assess the potential for great crested newts (*Triturus cristatus*) to be present.

2.10. The survey area was assessed for the potential for reptiles and suitable reptile habitats. Where applicable the area was also searched for the presence of reptiles.

2.11. Where appropriate, the habitat within and surrounding the survey area was searched for species such as hazel, oak, honeysuckle, bramble and other species which may provide potential habitat for hazel dormice (*Muscardinus avellanarius*). Field signs such as feeding remains and nests were also searched for where possible,

in line with P Bright, P Morris and T Mitchell-Jones *The Dormouse Conservation Handbook 2nd Edition*.

2.12. Where appropriate, the area within and surrounding the survey area was assessed for its potential to house habitat for red squirrels. Field signs of red squirrels were searched for at least every 50m, looking for any dreys, feeding signs or sightings of red squirrels.

2.13. All surveys were carried out in line with the Chartered Institute of Ecological and Environmental Management (CIEEM) survey standards and advice.

2.14. This document is prepared in line with The National Planning Policy Framework (NPPF). This sets out the government policy on biodiversity and nature conservation and places a duty on Planning Authorities to give material consideration to the effect of a development on legally protected species when considering planning applications. The NPPF and the Planning Practice Guidance on “Natural Environment” also promote sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within the development.

2.15. This report is prepared in line with the Natural Environment and Rural Communities (NERC) Act that came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

2.16. The survey was undertaken by Mitchel Greenhalgh, an ecological consultant with an array of experience in conducting surveys on a variety of flora and fauna in a professional capacity. Mitchel holds a level two Natural England survey licence in respect of both bats and great crested newts and a NatureScot survey licence in respect of bats. He is working towards gaining further survey licences and has attended courses run by CIEEM and the FSC. He also holds a BSc in environmental science attained from the University of Leeds and he is an associate member of CIEEM, and therefore committed to continuous professional development.

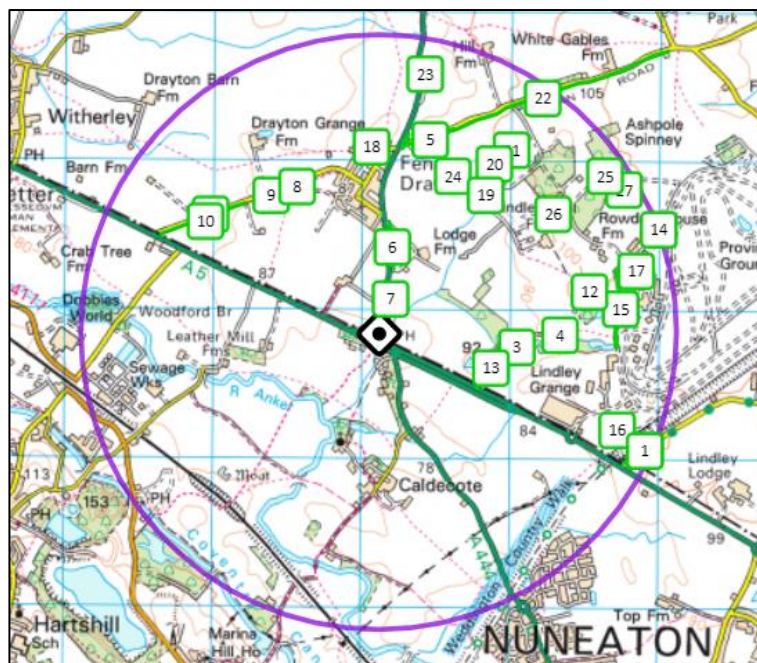
3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. A data search request was submitted to Leicestershire and Rutland Environmental Records Centre (LRERC) for records of protected species and the location of designated sites within 2km of the survey area.

3.1.2. LRERC provided numerous locations of Local Wildlife Sites within a 2km radius. However, none of these are relevant to the survey area with the only ones within a 500m radius, relating to individual trees or hedgerows.

3.1.3. LRERC provided the below map, which shows the proximity of the LWS to the survey area. The below map looks like the site is within one of the LWS, but actually lies in a small pocket just outside of them.



3.1.4. The MAGIC Map website was also checked for the locations of statutory sites, which shows that none are present within a 2km radius of the survey area, with the closest being Boon's Quarry Site of Special Scientific Interest, approximately 2.3km southwest of the site.

3.1.5. LRERC returned ample records of great crested newts, although only one is located within a 500m radius. This is a record of a breeding pond located approximately 170m south of the survey area.

3.1.6. LRERC also returned records of badger, otter and grass snake within a 2km radius, however, none of these are relevant to the survey area.

3.2. The Survey Area.

3.2.1. The survey area comprises a small parcel of land located to the north of Watling Street.

3.2.2. The aerial map below shows the approximate location of the survey area, marked by the red shape.



3.2.3. The further surroundings of the site are predominantly arable, but some scattered residential and commercial dwellings, woodland pockets and hedgerows are present. A busy road system comprising the A5, also known as Watling Street, to the south, and the A444 to the east, is present close to the site.

3.3. Description of Habitats.

3.3.1. Appendix IX of this report contains annotated maps marked up with the varying habitats that are cross referenced to target notes in Appendix X of this report. The habitats on the site are: -

- g3c – Other Neutral Grassland.
- h2a5 – Species-rich, native hedgerow.

3.3.2. g3c – Other Neutral Grassland.

Secondary codes: 517 recent management.

3.3.2.1. The habitat on site has already been completely cleared and at present, comprises only bare earth with few species. Those that are present include docks (*Rumex* spp.), thistles (*Cirsium* spp.), scentless mayweed (*Tripleurospermum inodorum*), dove's foot cranesbill (*Geranium molle*), bristly oxtongue (*Helminthotheca echioides*) and bramble (*Rubus* sp.). Some trees have been planted to the west of the site, but most have failed and are therefore not included within the baseline calculation.



3.3.2.2. As the existing habitat has already been cleared, the most recent aerial and street view imagery has been used to determine what habitat was present prior to clearance. The last available imagery prior to clearance was from June 2021, and showed the field to be an unmanaged parcel of grassland. This is consistent going back through past views, with the habitat being similar since at least 2019.



Image of survey area from June 2021, Google Street View, Accessed 21/08/2023

3.3.2.3. The habitat likely fell under the category of Other Neutral Grassland and therefore, it is categorised as such here. The condition assessment is automatically classified as good, due to lack of evidence to say otherwise.

3.3.3. h2a5 – Species-rich, native hedgerow.

Secondary codes: 50 ditch.

3.3.3.1. To the immediate south of the survey area, comprising the southern border of the site, is a dry ditch with a species-rich hedgerow. The species within the hedgerow include hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), sycamore (*Acer pseudoplatanus*) and crab apple (*Malus* sp.).



3.3.3.2. The understory of the hedge and bank of the ditch had recently been cleared during the survey but included species such as nettle (*Urtica dioica*), creeping buttercup (*Ranunculus repens*), field forget-me-not (*Myosotis arvensis*), ragwort (*Jacobaea vulgaris*), docks (*Rumex* spp.), bristly oxtongue (*Helminthotheca echinoides*), cleavers (*Galium aparine*), hedge bindweed (*Calystegia sepium*) and creeping thistle (*Cirsium arvense*).

3.3.3.3. The condition assessment for this habitat is shown below. It passes five out of eight of the criterion, but fails two in the same functional group and is therefore assessed as being of poor condition.

Attributes and functional groupings (A, B, C, D and E)		Criteria - the minimum requirements for 'favourable condition'	Description	Criterion passed (Yes or No)
Core groups - applicable to all hedgerow types				
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	Y
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn <i>Prunus spinosa</i> suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	Y
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	Y
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	Y
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	N
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of	The indicator species used are nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	N

		undisturbed ground.		
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA ³) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website ⁴ , as well as the BSBI website ⁵ where the 'Online Atlas of the British and Irish Flora' ⁶ contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website ⁷ .	Y
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g., excessive hedgerow cutting).	N
The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the metric. The scores for each are set out in the tables below.				
Condition categories for hedgerows without trees				
Category	Category Requirements	Metric Score		
Good	No more than 2 failures in total; AND No more than 1 failure in any functional group.			
Moderate	No more than 4 failures in total; AND <u>Does not fail both attributes</u> in more than one functional group (e.g. fails attributes A1, A2, B1 and C2 = Moderate condition).	✓		
Poor	Fails a total of more than 4 attributes; OR <u>Fails both attributes</u> in more than one functional group (e.g. fails attributes A1, A2, B1 and B2 = Poor condition).			
Score achieved:				5

3.4. Description of Fauna.

3.4.1. No badger setts or badger field signs were identified within the survey area.

3.4.2. There is no watercourse within, or close to the survey area, to provide suitable habitat for otter, water vole or white-clawed crayfish.

3.4.3. Great crested newts.

3.4.3.1. Ordnance Survey maps show three ponds within a 500m radius of the survey area. These are shown on the map below.



3.4.3.2. The closest of these is the pond located approximately 170m south of the survey area, which is known to host great crested newts. However, the pond is separated from the site by the busy Watling Street (A5), which will act as a major barrier to movement for great crested newts and other amphibians.



3.4.3.3. The other two ponds are located approximately 240m and 310m west of the site respectively, which aren't separated by any major barriers. These are both arable ponds and the land between the ponds and the survey area is also extensively arable, making it unlikely that great crested newts will commute the distance to the site.

3.4.4. The only structure relevant to the works, is the existing storage facility, as the new one will join on to its western face. This is a new building, with the face to be

affected comprising metal panelling which offers absolutely no opportunities for roosting bats. It is therefore assessed as having negligible potential for roosting bats, in line with the Bat Conservation Trust Good Practice Guidelines.



3.4.5. There are no trees within the survey area which host features which may be suitable for roosting bats.

3.4.6. The survey area is situated alongside arable fields and just north and west of a busy main road. However, it does have a hedgerow which runs along its southern boundary. Therefore, the survey area is assessed as having moderate suitability for foraging and commuting bats.

3.4.7. The survey area itself provides no suitable habitat for nesting birds, but the hedgerow on the southern boundary does, and may host nesting birds within the nesting season, which extends from March to August inclusive.

3.4.8. The survey area provides minimal suitable habitat for reptiles due to the surrounding land being extensively arable, and areas of more suitable habitat being cut off from the site by busy roads.

3.4.9. The survey area lies outside of the known natural home range of red squirrel and hazel dormouse and as such, they were not considered during the survey.

3.4.10. No invasive, non-native plant species listed on schedule 9 of the Wildlife and Countryside Act (1981) were identified within the survey area.

4. EVALUATION OF FINDINGS.

4.1. The survey area lies a sufficient distance from any designated site as to avoid impacting upon them. Therefore, the works will have no impact on designated sites.

4.2. The habitats due to be impacted by the works are only the now bare earth. Therefore, future works will impact only upon habitats of little ecological value.

4.3. *Baseline Biodiversity Score.*

4.3.1. The total baseline biodiversity units (BU) for the site are shown in the tables below. The score was calculated using the Biodiversity Metric 4.0, as was the most current version at the time of writing this report.

4.3.1.1. Area Habitats.

Habitat Type	Area in Ha	Distinctiveness	Condition Assessment	Biodiversity Units.
Other Neutral Grassland	0.2035	Moderate	Good	2.44
Total	0.2035Ha			2.44BU

4.3.1.2. Linear Habitats.

Habitat Type	Area in km	Distinctiveness	Condition Assessment	Biodiversity Units.
Species-rich, Native Hedgerow	0.038	Moderate	Poor	0.23
Total	0.038Ha			0.23BU

4.4. There are no badger setts or field signs within the survey area, and therefore, the works will have no impact on badgers.

4.5. There are no watercourses within, or close to the site, to provide suitable habitat for otter, water vole or white-clawed crayfish and therefore, there will be no impact on any of these species.

4.6. There are three ponds within a 500m radius of the survey area. One is separated from the site by a busy main road, and the other are arable ponds located approximately 230m and 310m west respectively, with arable surroundings between them and the survey area. Therefore, providing suitable precautions are in place, the works should not impact upon great crested newts.

4.7. There are no buildings or structures on site which have the potential to host roosting bats. Therefore, the works will have no impact on bats roosting within structures.

4.8. There are no trees within the survey area which have the potential to host roosting bats. Therefore, the works will have no impact on bats roosting within trees.

4.9. The general habitat offers poor suitability habitat for foraging and commuting bats due to its arable nature, with busy roads to the east and south. However, the suitability of the site is slightly increased by the hedgerow to the south. Regardless, the hedgerow will not be impacted by the works and therefore, the works will have no impact on foraging and commuting bats.

4.10. Any suitable nesting habitat is restricted to the hedgerow at the south of the site. However, the hedgerow will not be impacted by the works and therefore, the works will have no impact on nesting birds.

4.11. The site offers minimal suitable habitat for reptiles due to the arable surroundings and the fact that it is cut off from other areas of more suitable habitat by the neighbouring roads. Therefore, the works will have no impact on reptiles.

4.12. The site lies outside the known natural home range of red squirrel and hazel dormouse and therefore, there will be no impact on these species.

4.13. No invasive, non-native plant species listed on schedule 9 of the Wildlife and Countryside Act (1981) were identified within the survey area. Therefore, the works will not cause the spread of any such plant to the further environment.

5. RECOMMENDATIONS.

5.1. Biodiversity Net Gain.

5.1.1. Once the development plans have been finalised and all further surveys have been carried out, this report should be converted into an Ecological Impact Assessment (EcIA) where details of mitigation and biodiversity enhancements are included, to arrive at an assessment of the residual impact of the proposed development. This format will be suitable for submission to the local authority.

5.1.2. During the conversion of this report into an EcIA, it is recommended that the landscaping proposals for the site are confirmed, and a calculation undertaken to try and minimise the loss of biodiversity. To achieve this, it would help to remove all failed trees and add new native ones in their place.

5.1.3. In addition to this, there will be an expectation to provide biodiversity enhancements for fauna on the site. This will be best achieved by the way of fitting a bat box to the western face, and a swift box to the northern face of the new building, away from any direct lighting.

5.2. It is recommended that no works are carried out which affect the hedgerow along the southern boundary of the site. This is to retain a wildlife corridor along the southern boundary of the site.

5.3. It is recommended that a sensitive lighting plan be implemented, which does not subject the hedgerow to the south of the site to any more light than it currently experiences. This will ensure that the plans have no negative impact on bats or nesting birds.

5.4. It is recommended that the following precautions be put in place to ensure that the works do not impact upon great crested newts:

- Any materials must be stored on pallets, off of the ground.
- All materials, when needed, should be lifted cleanly and not dragged.
- Where possible, all vehicles should utilise the existing hardstanding.
- The site should now remain free of vegetation until works have been completed.
- No holes which could trap any animal species should be left open overnight without a ramp to allow amphibians and mammals to escape.

- Most importantly, if a great crested newt is identified, works should cease immediately and Whitcher Wildlife Ltd should be contacted for further advice.

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6. REFERENCES.

- Chartered Institute of Ecology and Environmental Management. 2017. **Guidelines for Preliminary Ecological Appraisal, Second Edition**. CIEEM, Hampshire.
- Chartered Institute of Ecology and Environmental Management. 2017. **Guidelines for Ecological Report Writing, Second Edition**. CIEEM, Hampshire.
1981. **Wildlife and Countryside Act**. <http://www.legislation.gov.uk/ukpga/1981/69> (accessed 18/02/16)
2000. **Countryside and Rights of Way Act**. <http://www.legislation.gov.uk/ukpga/2000/37/contents>.
2017. **The Conservation of Habitats and Species Regulations**. <http://www.legislation.gov.uk/uksi/2010/490/contents/made>.
2012. **National Planning Policy Statement**. <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- Anon. 1995. **Biodiversity: the UK Steering Group report. Vol 2: Action Plans**. HMSO, London.
- The UK Habitat Classification User Manual**. Version 1.1. UK Hab. September 2020.
- The UK Habitat Classification. **Habitat Definitions Version 1.1**. UK Hab. September 2020.
1992. **Protection of Badgers Act**. <https://www.legislation.gov.uk/ukpga/1992/51/contents>.
- Harris S, Cresswell P and Jefferies D. 1989. **Surveying Badgers**. Mammal Society. London.
- Dean M, Strachen R, Gow D and Andres R (2016). **The Water Vole Mitigation Handbook** (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The mammal Society, London
- Chanin P. 2003(a). **Ecology of the European Otter**. Conserving Natura 2000, Ecology Series No.10. English Nature, Peterborough.
- Chanin P. 2003(b) **Monitoring the Otter Lutra**. Conserving Natura 2000 Rivers Monitoring Series No. 10. English Nature, Peterborough.
- Peay S. 2003. **Monitoring the White-Clawed Crayfish *Austropotamobius pallipes***. Conserving Natura 2000 Rivers Monitoring Series No. 1. English Nature, Peterborough.
- English Nature. 2001. **Great Crested Newt Mitigation Guidelines**.
- Langton T, Beckett C, Foster J. 2001. **Great Crested Newt: Conservation Handbook**. Froglife, Suffolk.
- Oldham et al. 2000. **Great Crested Newt Habitat Suitability Assessment. ARG UK Advice Note 5, May 2010**.
- Collins J. (ed.) 2016. **Bat Surveys for Professional Ecologist: Good Practice Guidelines**. 3rd ed. The Bat Conservation Trust, London.
- English Nature. 2004. **Bat Mitigation Guidelines**. English Nature, Peterborough, UK.
- BTHK 2018. **Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-Care and Ecology Professionals**. Exeter: Pelagic Publishing.
- BOCC4 Eaton et al. 2015. **Birds of Conservation Concern 4: The Population Status of Bird's in the UK, Channel Islands and Isle of Man**.
- Joint Nature Conservation Committee. 2004. **Common Standards Monitoring Guidance for Birds**. 2004 ed. JNCC, Peterborough.
- Froglife. 1999. **Froglife Advice Sheet 10: Reptile Survey**. Froglife, London.
- Bright P, Morris P, Mitchell-Jones T. 2006. **The Dormouse Conservation Handbook** 2nd edition. English Nature, Peterborough.
- Joint Nature Conservation Committee. 2004 (ed.). **Common Standards Monitoring Guidance for: Reptiles and Amphibians**. JNCC, Peterborough.
- Joint Nature Conservation Committee. 1996. **UK Strategy for Red Squirrel Conservation**. JNCC, Peterborough.

Appendix I. NESTING BIRD INFORMATION.

Ecology

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September. It is also worth remembering that some birds nest in trees and scrub, but others are ground nesting or prefer man-made structures or buildings.

Surveys

Nesting bird surveys search for potential nest sites in vegetation, buildings etc. Potential nesting sites are observed over a suitable period of time for bird movements or calling male birds that would indicate the presence of a nest. The presence of a nest can be identified from the field signs without the necessity to see the nest itself, thereby avoiding any disturbance of the nests. The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

Legislation

Nesting birds are protected under The Wildlife and Countryside Act 1981.

Part 1. -(1) Of the Act states that: - If any person intentionally: - kills, injures or takes any wild bird; takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Part 1. -(5) of the Act states that: - If any person intentionally: - disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or disturbs young of such a bird, he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after “intentionally” the words “or recklessly”.

Appendix II. REPTILE INFORMATION.

Ecology

There are five main species of reptile that reside in the UK; Common or Viviparous Lizard (*Lacerta vivipara*); Sand Lizard (*Lacerta agilis*); Slow Worm (*Anguis fragilis*); Grass Snake (*Natrix natrix*) and Adder (*Vipera berus*). The Adder is the only native species that is venomous although this is rarely harmful to humans.

Reptiles occupy a wide range of habitats including woodland, marshes, heathland, moors, sand dunes, hedgerows and bogs. Sand Lizards are confined to moorland and coastal sand dunes where they lay their eggs in the warm sand. The range of the Sand Lizard in the UK is therefore very limited. Slow Worms can be found in a wide variety of habitats throughout Britain and is the most likely reptile to be found in urban and suburban environments.

Maintaining the right body temperature is vital to reptiles' survival. In the morning, they find a warm basking site to heat up their bodies, then later they may move back into the shade because they do not sweat and have to be careful not to overheat. During hot summers, Adders will try to move to damper, cooler sites.

Over winter reptiles will hibernate in burrows or under logs where they are protected from the cold and predators, emerging from February onwards as the weather warms up.

Reptiles generally begin to mate April to May with young born in late July to September. The Common Lizard gives birth to live young, hence the term viviparous, meaning live bearing.

Surveys

Reptile surveys involve the searching of refuge such as logs and stones for any animal sheltering below. Artificial refuge may be laid out on site for the purpose of reptile surveys.

Legislation

Reptiles are protected under Appendix II (sand lizards) and Appendix III (common lizard, slow worms, smooth snake, grass snake and adders) of the BERN Convention (1982), partially protected under Schedule 5 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive and are all listed under section 41 of the Natural Environment and Communities Act (2006) making them a species of principal importance.

This makes it an offence to disturb any reptile while it is occupying a structure or place it uses for shelter or protection or to obstruct access to such a place.

Appendix III. GREAT CRESTED NEWT INFORMATION.

Ecology

Great Crested Newts breed in ponds and other water bodies. They can begin to migrate to their breeding ponds as early as the first frost-free days in late January with the majority reaching their breeding ponds by mid-March. Timing will be influenced by several factors, primarily evening temperatures above 5°C and rainfall.

The peak egg-laying period is from mid-March to mid-May. The newts will lay their eggs individually, mainly on the leaves of submerged plants. The larva hatch after three weeks and then take another 2-3 months to complete larval development. Adult newts generally leave their breeding ponds from late May onwards.

Once the larvae have completed metamorphosis (the transition from aquatic larvae, efts, to land-adapted juveniles), they emerge from the pond. This emergence begins in late August and generally continues until late October. It takes 2-4 years to reach sexual maturity, during which time the newts will be land based.

Adults and immature newts spend the winter in places that afford protection from frost and flooding. This will generally be underground amongst tree roots, in mammal burrows, or under suitable refuges above ground like deadwood or rubble piles. Hibernation may last from October to February.

Whilst on land, outside the hibernation period, great crested newts will forage at night, taking a wide range of invertebrate prey.

Great Crested Newts therefore spend the majority of their time on land and only visit the ponds for breeding purposes.

Great Crested Newts will travel large distances between ponds and terrestrial refuges. It is recommended that anywhere within 500m of a pond should be treated as potential Great Crested Newt habitat.

Surveys

Walkover surveys will identify the suitability of any ponds within the area for Great Crested Newts by using a HSI assessment. The terrestrial habitat and their links will also be assessed.

Aquatic surveys of newts can be carried out through the trapping of ponds in suitable weather conditions during the breeding season, although these surveys do not provide accurate population estimates.

Terrestrial surveys and exclusions can be conducted between March and September when newts are moving out of breeding ponds.

An experienced surveyor must carry out the surveys and must be in possession of an appropriate Natural England Great Crested Newt survey license.

It is essential that Great Crested Newt surveys are planned well in advance of any development and ideally before Planning Consent is sought. Surveys can only be carried out at the appropriate time of year and repeat surveys are essential.

Legislation

Great Crested Newts are protected under Appendix II of the BERN Convention (1982), Schedule 5 of the Wildlife and Countryside Act (1981), Annex II and IV of the Habitats Directive, Annex II of the Conservation and Wildlife Regulations (2010) and are listed under section 41 of the Natural Environment and Communities Act (2006) making them a species of principal importance.

This makes it an offence to kill, injure or take any Great Crested Newt, to interfere with any place used for shelter or protection, or to intentionally disturb any animal occupying such a place.

If Great Crested Newts are to be affected by any development, a thorough assessment of the population is essential followed by the design of a comprehensive mitigation package. Only when this has been done can a license application be submitted to Natural England for approval. It takes 30 working days for a license application to be determined and the period that mitigation measures take can be measured in months. It is therefore essential to plan well in advance of development commencing.

APPENDIX IV. ANNOTATED MAP OF THE SURVEY AREA.



Appendix V. TARGET NOTES.

T1. Watling Street (A5).

T2. Existing storage unit.

T3. Hedgerow.

APPENDIX VI. PROPOSED LAYOUT.

