



NEW ROAD, TANKERSLEY.

OS REF: SE 34308 00189.

PRELIMINARY ECOLOGICAL APPRAISAL.

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1. INTRODUCTION.

1.1. A planning application is being prepared to develop land off New Road in Tankersley. The site is currently a disused factory shop.

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

1.3. The site survey was carried out on 29th May 2018 and this report outlines the findings of that survey and makes appropriate recommendations.

1.4. Appendices I to IV 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 JNCC Handbook for Phase 1 Habitat surveys.

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 50m in each direction were thoroughly searched for evidence of water vole (*Arvicola amphibius*) activity by looking for the following signs, in line with Rob Strachan, Tom Moorhouse and Merryl Gelling (2011). *Water Vole Handbook: Third Edition*: -

- * 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 mature trees and derelict buildings 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. This survey was carried out by Jenny Whitcher Roebuck MCIEEM. Since 2001 Jenny has had experience in a professional capacity as a Wildlife Consultant carrying out Ecology Surveys and Phase 1 Habitat surveys. Jenny holds Natural England Survey Licences in respect of bats, great crested newts, crayfish and barn owls, NRW and SNH Survey Licences in respect of bats and great crested newts. She has also successfully completed a number of courses run by the Chartered Institute of Ecology and Environmental Management (CIEEM), the Bat Conservation Trust (BCT) and the Field Studies Council (FSC) in the relative protected species, plant species and in carrying out Phase 1 Habitat Surveys. As a full member of CIEEM she is committed to continuous professional development, a continual process of learning and career development, a condition of CIEEM membership.

3. SURVEY RESULTS.

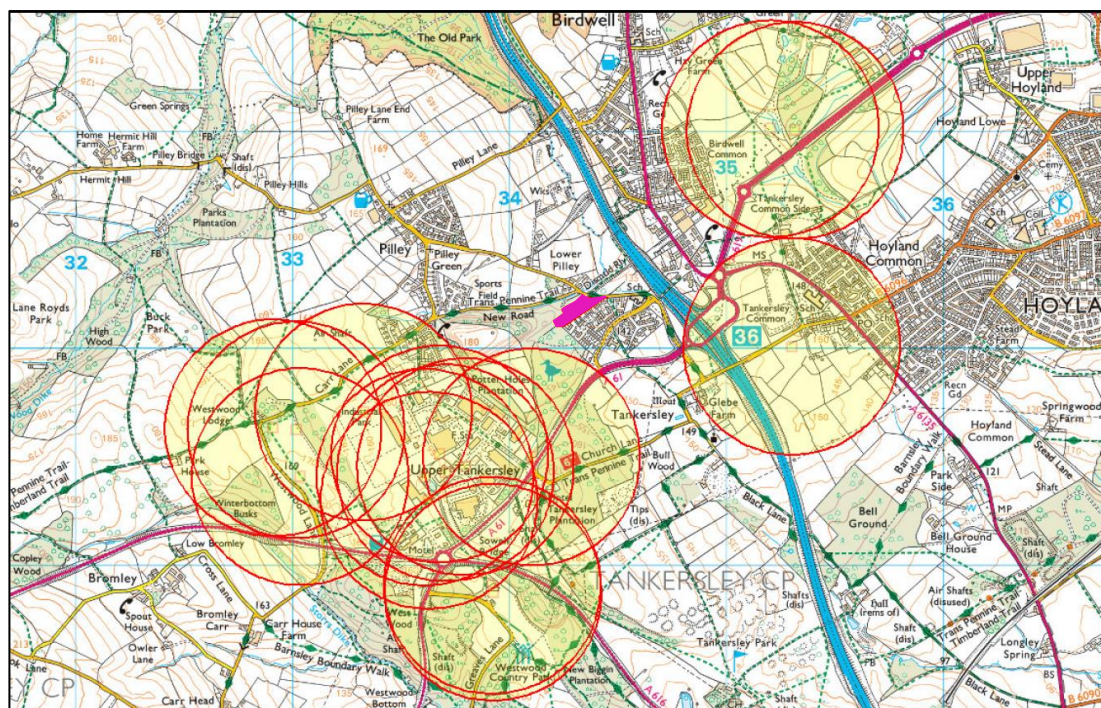
3.1. Data Search Results.

3.1.1. A desktop data search was requested from Barnsley Biological Records Centre, South Yorkshire Bat Group and South Yorkshire Badger Group for records of protected species and designated sites within 2km of the survey area.

3.1.2. Barnsley Biological Records Centre holds records of grass snake, one record 600m to the southwest from 2010, two 850m to the southwest from 2006 and one 920m to the southwest from 2007.

3.1.3. The nearest records of great crested newt are four records 620m to the south of the survey area from 2007, 2010 and 2011. There are ten records of great crested newt from 2006 and 2012, 990m to the southwest with further records of the species in this area but all over 1km from the site. There are also three records of great crested newts 1km to the east from 2013.

3.1.4. The map below shows the survey area, in pink, and shows the location of each GCN record with a 500m buffer around each record.



3.1.4. There are records of various species of bat within 2km of the survey area, but the nearest record lies 640m from the site and is of one individual bat.

3.1.5. Potter Holes Plantation Local Nature Reserve and Local Wildlife Site lies adjacent to the site boundary for a short distance at the southwest corner of the site. The map below shows the survey area in red and the LNR and LWS.



3.1.6. South Yorkshire Bat Group hold numerous records of bats and bat roosts within the surrounding area. The nearest records held are a bat call out for one Whiskered bat in 2016, 300m to the southeast.

3.1.7. The nearest roost record is from 2009 and lies 725m to the southeast of the survey area.

3.1.8. South Yorkshire Badger Group hold no records of badgers or badger setts within or near to the surveyed area. There are records further from the site, but these are far enough from the survey area to be totally unaffected by the works.

3.2. The Surveyed Area.

The survey area is an old company shop that is now empty and disused. The aerial photograph below shows the survey area within the red line.



3.3. Description of Habitats.

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

- Broad-Leaved Woodland
- Dense Scrub
- Improved Grassland
- Ephemeral Short Perennial
- Scattered Trees
- Bare Ground
- Building
- Hedge with Trees, Species Poor
- Hedge, defunct, Species Poor
- Wall
- Fence

3.3.2. Broad-Leaved Woodland

At the northeast side of the site there is a small area of immature woodland including goat willow (*Salix caprea*), alder (*Alnus glutinosa*), ash (*Fraxinus excelsior*), hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*) and sycamore (*Acer pseudoplatanus*) with some nettle (*Urtica dioica*), bindweed (*Convolvulus arvensis*) and wood avens (*Geum urbanum*) growing below. The photograph adjacent shows the small area of woodland.



3.3.3. Dense Scrub

At the northeast corner of the site there is a small area overgrown with bramble (*Rubus fruticosus*) scrub with other species present, including hogweed (*Heracleum sphondylium*), nettle (*Urtica dioica*) and bindweed (*Convolvulus arvensis*). The photograph below shows this area.



3.3.4. Improved Grassland

When the company shop was operational these areas were regularly mown lawns. However, since the shop has closed down this grass has been left to grow with red fescue (*Festuca rubra*), annual meadow grass (*Poa annua*), cocks foot (*Dactylis glomerata*), perennial rye grass (*Lolium perenne*) and Yorkshire fog (*Holcus lanatus*) with other species present, including common vetch (*Vicia sativa*), creeping buttercup (*Ranunculus Repens*), ribwort plantain (*Plantago lanceolata*), knapweed (*Centaurea nigra*), dandelion (*Taraxacum officinale*), dock (*Rumex acetosella*), hogweed (*Heracleum sphondylium*), white clover (*Trifolium repens*), red clover (*Trifolium pratense*), ox-eye daisy (*Leucanthemum vulgare*) and ragwort (*Senecio jacobaea*). The two photographs below show two areas of grassland.



3.3.5. Ephemeral Short Perennial

There are a few areas, which were sand and hard standing, which are now becoming overgrown with short perennial plants. The main species present are broad-leaved willowherb (*Epilobium montanum*), sow thistle (*Sonchus oleraceus*), thistle (*Cirsium sp(p)*), nettle (*Urtica dioica*), white clover (*Trifolium repens*), bittercress (*Cardamine hirsuta*), groundsel (*Senecio vulgaris*), cleavers (*Galium aparine*), creeping thistle (*Cirsium arvense*), pineapple weed (*Matricaria discoidea*), garlic mustard (*Alliaria petiolata*) and creeping buttercup (*Ranunculus Repens*) with occasional young grass species. The two photographs below show two of these areas.



3.3.6. Scattered Trees

Throughout the survey area there are a few trees scattered across the site. The main species present are alder (*Alnus glutinosa*), silver birch (*Betula pendula*), ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplatanus*), hawthorn (*Crataegus monogyna*) and Leyland Cypress (*Cupressocyparis leylandii*). The four photographs below show some of the scattered trees across the site.



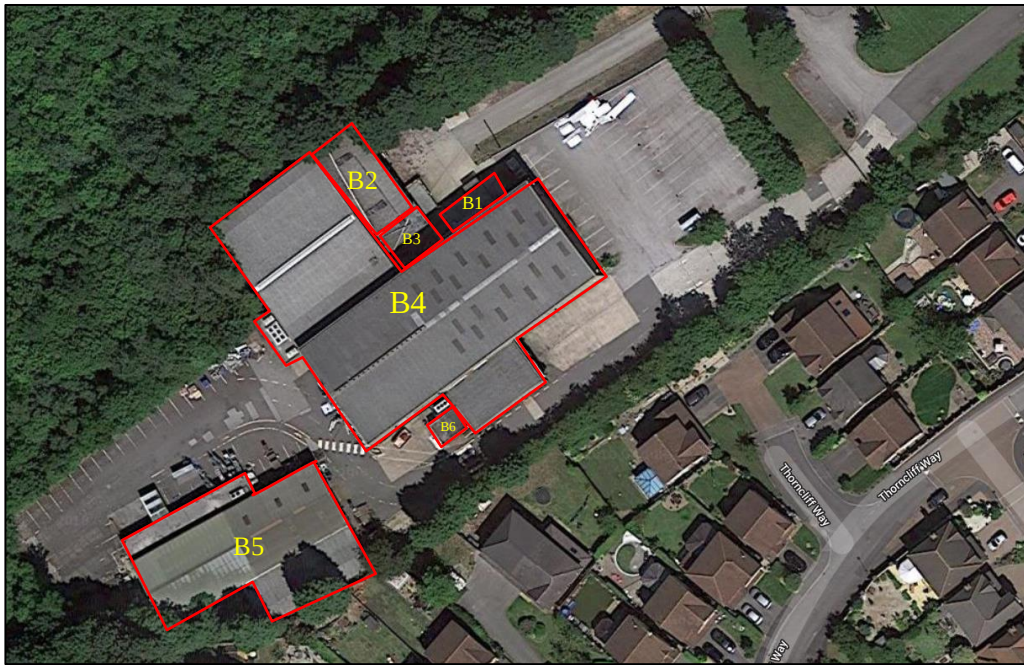
3.3.7. Bare Ground

A large part of the site is bare ground with tarmac roads, tarmac and concrete parking areas and areas of hardstanding. The four photographs below show some of these areas of bare ground.



3.3.8. Building

There are a number of buildings on the site, these have been split into separate buildings and each given a number for the purpose of this report. The map below shows each building and its number.



3.3.8.1. Building 1.



3.3.8.1.1. Building 1 is a small porta cabin, which is single storey with a flat roof. There are broken windows throughout this building.

3.3.8.1.2. This building is assessed as having **no** bat roost potential and no bat field signs were found. No bird nests or bird activity were identified around this building during this survey.

3.3.8.2. Building 2.

3.3.8.2.1. Building 2 is a single storey, flat roof building, constructed with corrugated metal sheet walls and a sloping corrugated metal sheet roof. There are open and broken windows throughout the building.

3.3.8.2.2. This building is assessed as having **no** bat roost potential and no bat field signs were found. No bird nests or bird activity were identified around this building during this survey.



3.3.8.3. Building 3.

3.3.8.3.1. Building 3 is a single storey building, joined to Building 4 on two sides and Building 2 on one side. The building is constructed with brick cavity walls and a flat fibreglass roof. There is a broken window on the eastern side of the building.

3.3.8.3.2. The brickwork is in good condition with no cracks or gaps. The roof is generally in good condition and the wooden fascia boards are tight fitting.

3.3.8.3.3. This building is assessed as having **no** bat roost potential and no bat field signs were found. No bird nests or bird activity were identified around this building during this survey.



3.3.8.4. Building 4.

3.3.8.4.1. Building 4 is a large tall building with sections of the building being of different heights. The building is constructed with corrugated metal sheet walls on a metal frame with a corrugated metal sheet roof with a shallow pitch. There are open doorways and missing windows around this building. Internally the building has a number of large storage rooms open to the underside of the corrugated roof sheets throughout most of the building with a few small rooms having a suspended ceiling.

3.3.8.4.2. This building is assessed as having **no** bat roost potential and no bat field signs were found. No bird nests or bird activity were identified around this building during this survey.



3.3.8.5. Building 5

3.3.8.5.1. This is a single storey building constructed with corrugated metal sheet walls on a metal frame with a corrugated metal sheet roof with a shallow pitch. There are a few single storey sections with flat concrete roofs on the northern and southern sides of the building. Inside the main section of the building there is a suspended ceiling but large sections of this are missing showing the underside of the corrugated

roof sheets above. There are a few small rooms, which also have a suspended ceiling. Inside the two flat roof brick sections the concrete roof is exposed. The building has numerous open and broken windows and doors.

3.3.8.5.2. This building is assessed as having **no** bat roost potential and no bat field signs were found. No bird nests or bird activity were identified around this building during this survey.



3.3.8.6. Building 6

3.3.8.6.1. Building 6 is a small building, joined to the rear of the southern section of Building 4. The building is constructed with brick cavity walls and a flat felt covered roof. The brickwork is in good condition with no cracks or gaps.



3.3.8.6.2. This building is assessed as having **no** bat roost potential and no bat field signs were found. No bird nests or bird activity were identified around this building during this survey.

3.3.9. Hedge with Trees, Species Poor

There are a number of hedges with trees around the northwest, southwest and southern site boundaries. The main species present in these hedges is Leyland Cypress (*Cupressocyparis leylandii*), alder (*Alnus glutinosa*), silver birch (*Betula pendula*), ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplatanus*), hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*) and oak (*Quercus sp(p)*) with a cow parsley (*Anthriscus sylvestris*), ox-eye daisy (*Leucanthemum vulgare*), bindweed (*Convolvulus arvensis*), dandelion (*Taraxacum officinale*), vetch (*Vicia sativa*), garlic mustard (*Alliaria petiolata*) and some bramble (*Rubus fruticosus*) growing below.



3.3.10. Hedge, defunct, Species Poor

In the centre of the site, across the bottom of a car park area, is a large tall Leyland Cypress (*Cupressocyparis leylandii*) hedge that has not been managed for a number of years. The photograph below shows this hedge.



3.3.11. Wall

There are a number of walls around the site, most of them retaining walls. There are low stone walls on the eastern and northern boundaries. There is a small section of concrete slab wall at the southern side of Building 5, two small brick sections on the northern side of Building 5 and a concrete block wall at the eastern side of Building 5. The photographs below show some of the sections of wall on the site.



3.3.12. Fence

At the western end of the site there is a section of chain link fence. On the southern boundary there is a timber panel fence between the site and adjacent private gardens with a broken chain link fence on the site side. The photographs below show some sections of fence on the site.



3.4. Description of Fauna.

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

3.4.2. No watercourses were identified within the survey area. Therefore, there is no habitat for water voles, otters or white clawed crayfish within the survey area.

3.4.3. No ponds were identified within 500m of the survey area whilst on site or on an Ordnance Survey Map of the area.

3.4.3.1. The terrestrial habitat within the survey area is low value as it is mainly tarmac and concrete, buildings and improved grassland at the eastern side of the site.

3.4.3.2. The terrestrial habitat surrounding the survey area is low value to the south and east with high value woodland to the north and west.

3.4.3.3. There are numerous records of great crested newts to the southwest with the nearest record 620m away but most of the records are on or on the opposite side of Tankersley Industrial Estate where there is Sowell Pond, a well-established great crested newt population.

3.4.3.4. There are three records of great crested newts 1km to the east of the survey area, but these records are on the opposite side of the M1 motorway, which will form a barrier to newts moving towards the site.

3.4.3.5. It is assessed as unlikely that great crested newts will be present within the survey area as, despite the high value woodland terrestrial habitat between the site and the records, there are no ponds in this direction for newts to travel between.

3.4.4. The buildings on the site are all assessed as having no potential for roosting bats as there are no suitable features present. No mature trees that could provide bat roost potential were identified within the survey area.

3.4.5. The survey area provides moderate potential for foraging and commuting bats along the northern, western and southern site boundaries along the tree lines and woodland. However, the main site provides little potential for foraging and commuting bats.

3.4.6. The vegetation within the survey area provides opportunities for nesting birds during the nesting season, which extends from March to September each year. However, no active nests were identified during this survey.

3.4.7. The survey area provides some potential habitat for reptiles to bask on the areas of tarmac, although there are limited refuges on the site. No reptiles were identified during this survey and the only records are over 600m to the southwest of the site.

3.4.8. No suitable dormouse habitat was identified during this survey. The survey area is also outside the known range of this species.

3.4.9. No red squirrels or red squirrel field signs were identified during this survey and there is no suitable habitat within the survey area. The survey area is also outside the known range of this species.

3.4.10. No non-native invasive species of plant listed under Schedule 9 of The Wildlife and Countryside Act 1981 were identified within the survey area.

4. EVALUATION OF FINDINGS.

4.1. Potter Holes Plantation Local Nature Reserve and Local Wildlife Site lies adjacent to the site boundary for a short distance at the southwest corner of the site. This LNR and LWS only borders the survey area for a short distance of approximately 20m. Therefore, works will have no impact on the LNR and LWS site if the works remain within the site boundary and if a sensitive lighting scheme is designed with no lights shining into Potter Holes Plantation.

4.2. No badger setts or badger field signs were identified within the survey area. Therefore, there will be no impact on badgers during the proposed works.

4.3. No watercourses were identified within the survey area. Therefore, there will be no impact on water voles, otters or crayfish during the proposed works.

4.4. No ponds were identified within 500m of the survey area whilst on site or on an Ordnance Survey Map of the area. There are numerous records of great crested newts to the southwest with the nearest record 620m away. The records to the east have the M1 motorway as a barrier between their location and the site. The site itself is low value terrestrial habitat for great crested newts and it is therefore assessed as unlikely that great crested newts will be present within the survey area. Despite the high value woodland terrestrial habitat between the site and the Sowell Ponds records there are no other ponds in this direction for newts to travel between. Therefore, it is assessed that there will be no impact on great crested newts during the proposed works.

4.5. The buildings on the site are all assessed as having no potential for roosting bats as there are no suitable features present. No mature trees that could provide bat roost potential were identified within the survey area. Therefore, there will be no impact on roosting bats during the proposed works.

4.6. The survey area provides moderate potential for foraging and commuting bats mainly along the northern, western and southern boundaries of the site. The main area of the site provides little potential for foraging and commuting bats. If the trees and hedges along these boundaries remain in place the proposed works will not fragment any foraging habitat and will therefore have no impact on foraging or commuting bats. Also, a sensitive lighting scheme must be designed with low level down lighting and no lighting shining along these boundaries.

4.7. The vegetation within the survey area provides opportunities for nesting birds during the nesting season, which extends from March to September, inclusive, each year. Vegetation clearance within the nesting bird season will have an impact on any birds nesting within the work site.

4.8. The survey area provides some potential habitat for reptiles to bask on the areas of tarmac, although there are limited refuges on the site. The works will have a low impact on any reptiles within the area.

4.9. No suitable dormouse habitat was identified during this survey. The survey area is also outside the known range of this species. Therefore, there will be no impact on dormice during the proposed works.

4.10. No red squirrels or red squirrel field signs were identified during this survey and there is no suitable habitat within the survey area. The survey area is also outside the known range of this species. Therefore, there will be no impact on red squirrels during the proposed works.

4.11. No non-native invasive species of plant listed under Schedule 9 of The Wildlife and Countryside Act 1981 were identified within the survey area. Therefore, there will be no impact on the proposed works.

5. RECOMMENDATIONS.

5.1. This Preliminary Ecological Appraisal report is designed to advise the client of the initial survey results so that they may be considered within the site development plan.

5.2. Once all surveys have been completed and the development plans have been finalised, the report must be converted into an Ecological Impact Assessment (EcIA) where details of further survey results, mitigation and biological enhancements are included, to arrive at an assessment of the residual impact of the proposed development. This format will be suitable to submit to the Local Authority.

5.3. It is recommended that, as a precaution, all personnel working on the site are briefed on the presence of great crested newts in the surrounding area. Appendices X and XI of this report contain a toolbox talk and identification sheet relating to great crested newts to assist with this briefing. In the unlikely event that a great crested newt is found during the works, all work must stop and Whitcher Wildlife Ltd contacted immediately for further advice.

5.4. It is recommended that the trees and hedges along the northern, western and southern site boundaries remain in place. If this vegetation remains there will be no requirement for further bat surveys.

5.5. However, if the vegetation along these boundaries is to be removed bat transect surveys will be required to assess the level of bat foraging and commuting activity around the site before any works can be carried out. These should be carried out one a month between April and October with static bat detectors left on site during each survey for a period of five days.

5.6. The small area of trees along the eastern site boundary, alongside New Road, will be removed as part of the development but these trees will be replaced with native fruit and berry bearing species.

5.7. It is recommended that a row of native trees is planted at the southwest corner of the site where the site boundary is adjacent to the Potter Holes Plantation LNR to form a buffer between the site and the LNR.

5.8. It is recommended that a sensitive lighting scheme is designed with all lighting being low level down lighting with on lighting shining on to any site boundaries.

5.9. Any vegetation clearance should be carried out outside the nesting bird season, which extends from March to September each year.

5.10. If any vegetation clearance is to be carried out during the nesting bird season a thorough nesting bird survey must be carried out by a suitably experienced person immediately prior to works commencing. If any active nests are found during this survey, they must be left undisturbed until the young have fledged. This could put a considerable delay on proposed works.

5.11. It is recommended that all personnel are briefed on the potential presence of reptiles. If any reptiles are found during the works they must be left to safely move away of their own accord. If large numbers of reptiles (5+) are found works must stop and Whitcher Wildlife Ltd contacted for further advice. Appendix IX of this report contain toolbox talks to assist with this briefing.

5.12. In line with NPPF it is recommended that the biodiversity on the site is enhanced through the inclusion of bat and bird boxes incorporated into the new development to enhance the habitat and provide nesting opportunities for a variety of species of bird and opportunities for roosting bats. Any planting on the site should be, where possible, native fruit or berry bearing species to provide a food source for a variety of birds.

Prepared by:	
Jenny Whitcher Roebuck MCIEEM.	Date: 7 th June 2018.

Checked by:	
Derek Whitcher. BSc, MCIEEM, MCMI	Date: 7 th June 2018.

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Appendix I. BAT INFORMATION.

Ecology

There are currently 18 species of bat residing in Britain, 17 of which are known to breed here. They are extremely difficult to identify in the hand and even more so in flight.

All appear to be diminishing in numbers, probably due to habitat change and shortage of food, caused by pesticides, as insects are their sole diet.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and the roofs of buildings.

Certain species, particularly the pipistrelle (the commonest and most widespread British bat) can quickly adapt to man-made structures and will readily use these to roost and to rear their young.

Surveys

During walkover surveys, bat roosts can be identified by looking for:

- Suitable holes, cracks and crevices within any building, tree or other structure.
- Bat droppings along walls, window cills, or on the ground.
- Prey remains, such as insect wings.

Further investigations can be made using endoscopes, by carrying out aerial inspections of trees or by conducting bat activity surveys during dusk and dawn over summer months.

Legislation

Bats are protected under Appendix II and III of the Bern Convention (1982), Schedule 5 and 6 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive (some species under Annex II), Annex II of the Conservation of Habitats and Species Regulations (2010) and EUROBATs agreement. Numerous species are also listed under section 41 of the Natural Environment and Rural Communities Act (2006) making them species of principal importance.

All bats and their roosts are therefore protected in the UK. This makes it an offence to kill, injure or take any bat, to interfere with any place used for shelter or protection, or to intentionally disturb any animal occupying such a place.

The UK has designated maternity and hibernacula areas as Special Areas of Conservation (SAC's) under the Habitats Directive. Implementation of the UK Biodiversity Action Plan also includes action for a number bat species and the habitats which support them.

Where development proposals are likely to affect a bat roost site, a licence is required from Natural England.

Appendix II. 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 III. 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 IV. 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 must 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

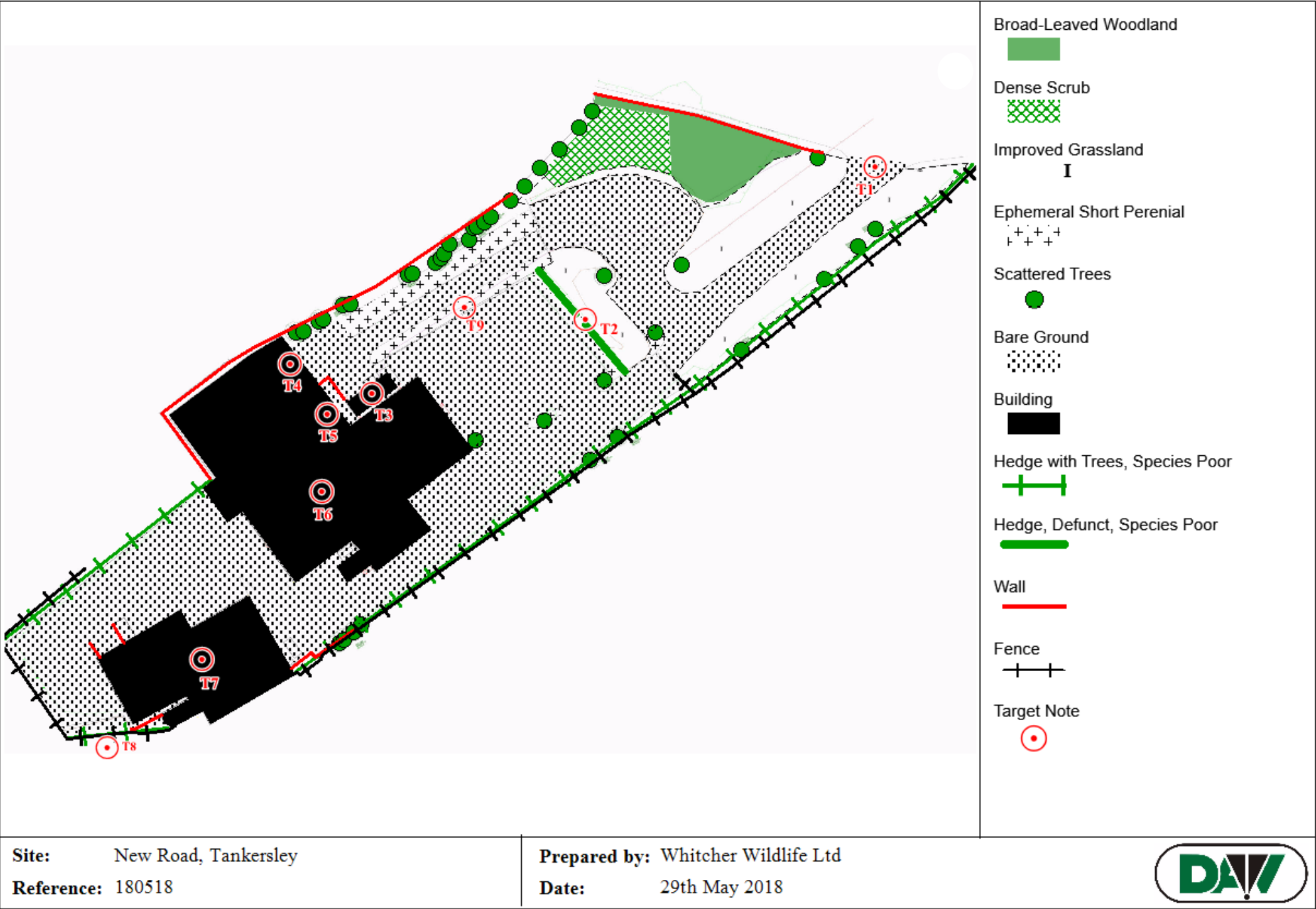
Reptile surveys involve the searching of refuge such as logs and stones for any animal sheltering below. Artificial refuge may be laid out on site for reptile surveys.

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 V. ANNOTATED MAP OF THE SURVEY AREA.



Appendix VI. TARGET NOTES.

- T1 - The entrance to the site.
- T2 - Tall conifer hedge growing at the bottom of a car park.
- T3 - Building 1.
- T4 - Building 2.
- T5 - Building 3.
- T6 - Building 4.
- T7 - Building 5.
- T8 - The Potter Holes Plantation Local Nature Reserve and Local Wildlife
Site borders the survey area.
- T9 - A small embankment between an access road a car park area above.

Appendix VII. SPECIES LISTS.

Broad-Leaved Woodland Species.	DAFOR Assessment.
goat willow (<i>Salix caprea</i>)	O
alder (<i>Alnus glutinosa</i>)	F
ash (<i>Fraxinus excelsior</i>)	A
hawthorn (<i>Crataegus monogyna</i>)	D
hazel (<i>Corylus avellana</i>)	O
sycamore (<i>Acer pseudoplatanus</i>)	F
nettle (<i>Urtica dioica</i>)	A
bindweed (<i>Convolvulus arvensis</i>)	F
wood avens (<i>Geum urbanum</i>)	F

Dense Scrub Species.	DAFOR Assessment.
bramble (<i>Rubus fruticosus</i>)	D
hogweed (<i>Heracleum sphondylium</i>)	O
nettle (<i>Urtica dioica</i>)	A
bindweed (<i>Convolvulus arvensis</i>)	A

Improved Grassland Species.	DAFOR Assessment.
red fescue (<i>Festuca rubra</i>)	D
annual meadow grass (<i>Poa annua</i>)	F
cocks foot (<i>Dactylis glomerata</i>)	F
perennial rye grass (<i>Lolium perenne</i>)	A
Yorkshire fog (<i>Holcus lanatus</i>)	A
vetch (<i>Vicia sativa</i>)	F
creeping buttercup (<i>Ranunculus Repens</i>)	A
ribwort plantain (<i>Plantago lanceolata</i>)	O
knapweed (<i>Centaurea nigra</i>)	O
dandelion (<i>Taraxacum officinale</i>)	F
dock (<i>Rumex acetosella</i>)	O
hogweed (<i>Heracleum sphondylium</i>)	O
white clover (<i>Trifolium repens</i>)	A
red clover (<i>Trifolium pratense</i>)	A
ox-eye daisy (<i>Leucanthemum vulgare</i>)	O
ragwort (<i>Senecio jacobaea</i>)	O

Ephemeral Short Perennial Species.	DAFOR Assessment.
broad-leaved willowherb (<i>Epilobium montanum</i>)	D
sow thistle (<i>Sonchus oleraceus</i>)	R
thistle (<i>Cirsium sp(p)</i>)	O
nettle (<i>Urtica dioica</i>)	O
white clover (<i>Trifolium repens</i>)	F
bittercress (<i>Cardamine hirsuta</i>)	F
groundsel (<i>Senecio vulgaris</i>)	F
cleavers (<i>Galium aparine</i>)	F
creeping thistle (<i>Cirsium arvense</i>)	O
pineapple weed (<i>Matricaria discoidea</i>)	F
garlic mustard (<i>Alliaria petiolata</i>)	A
creeping buttercup (<i>Ranunculus Repens</i>)	F

Scattered Trees Species.	DAFOR Assessment.
alder (<i>Alnus glutinosa</i>)	D
silver birch (<i>Betula pendula</i>)	F
ash (<i>Fraxinus excelsior</i>)	O
sycamore (<i>Acer pseudoplatanus</i>)	F
hawthorn (<i>Crataegus monogyna</i>)	O
Leyland Cypress (<i>Cupressocyparis leylandii</i>)	A

Hedge with Trees, Species Poor Species.	DAFOR Assessment.
Leyland Cypress (<i>Cupressocyparis leylandii</i>)	O
alder (<i>Alnus glutinosa</i>)	A
silver birch (<i>Betula pendula</i>)	O
ash (<i>Fraxinus excelsior</i>)	A
sycamore (<i>Acer pseudoplatanus</i>)	A
hawthorn (<i>Crataegus monogyna</i>)	D
hazel (<i>Corylus avellana</i>)	O
oak (<i>Quercus sp(p)</i>)	R
cow parsley (<i>Anthriscus sylvestris</i>)	O
ox-eye daisy (<i>Leucanthemum vulgare</i>)	O
bindweed (<i>Convolvulus arvensis</i>)	F

dandelion (<i>Taraxacum officinale</i>)	F
vetch (<i>Vicia sativa</i>)	O
garlic mustard (<i>Alliaria petiolata</i>)	F
bramble (<i>Rubus fruticosus</i>)	F

Hedge, defunct, Species Poor Species.	DAFOR Assessment.
Leyland Cypress (<i>Cupressocyparis leylandii</i>)	D

THORNCLIFFE WAY

NEW ROAD

EXISTING WOOD

TITLE BOUNDARY

SCALE BAR.

0' 1' 1' 1' 1' 50'

RESIDENTIAL DEVELOPMENT, NEW ROAD, TANKERSLEY
DWG SK/M/OI DATED 1ST MARCH 2018 BY AS
SCALE 1:500 AT A2.

LAYOUT MAX:-

M - MALHAM	4	1 APPROXIMATE
B - BEECH	3	
K - KENNINGTON	2	
ST - STUBLEY	4	
FU - FULWOOD	5	
HA - HAREWOOD	3	
NO - NOSTEN	3	
SH - SHENLEY	3	
CO - COLLINGHAM	2	
TOTAL	29	

Toolbox Talk: Reptiles

Whitcher Wildlife Ltd

Ecological Consultants



Identification: Grass Snakes.

The grass snake can be up to 120cm long. It is generally dark green in colour but may occasionally appear grey with vertical black bars and spots that run along its sides. There is usually a yellow marking around the neck.



Other Reptiles.

In addition to the reptiles outlined on this document there are also two other reptile species in Great Britain, the smooth snakes and the sand lizard. These reptiles are a lot less common than the four species covered with the smooth snake being predominantly found on heathland in southern England and the sand lizard found throughout Great Britain in coastal dune areas.

These species are also afforded a higher level of protection because they are European Protected Species.

Identification: Adders.

The adder is the only native species that is venomous, but it is rarely harmful to humans. Adult adders are generally up to 66cm long. Back ground colouration is a light shade of grey or brown with a back zig-zag marking along the length of the back. As with all reptiles, colouration varies and becomes duller as sloughing (skin shedding) approaches.



Habitat.

Maintaining the right body temperature is vital to reptiles' survival. In the morning they find a warm basking site to heat up their bodies and then later they may move back into the shade so as not to overheat. Hence, reptiles require a habitat that provides a range of suitable refugia for shelter such as dense vegetation, rubble or log piles, or crevices and open areas for basking such as bare ground, rocks or railway ballast shoulders. During hot summers reptiles may be found in damper, cooler sites. Reptiles hibernate, spending the winter in burrows or under logs protected from the cold and predators.

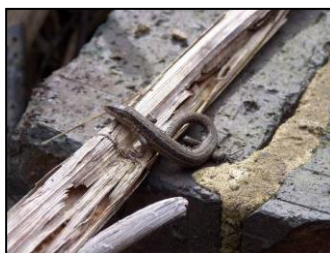
Identification: Slow Worms.

Slow worms grow to around 45cm in length. The males and females display a marked difference in colour when fully grown. In general, the species displays colouring that varies from light brown, dark brown, grey, bronze or brick red with the females often displaying a dark vertebral stripe and both males and females displaying occasional markings on the flanks.



Identification: Common Lizards.

Common lizards grow to around 16cm. They are grey brown to dark brown, often with a darker streak that may run the entire length of the spine. A continuous dark band bordered by light yellow or white spots is often seen on either side of the body. The underside of the males is egg yolk yellow to orange spotted with black. Females are yellowish grey.



When disturbed in their natural habitat reptiles will usually move away quickly.

Legislation.

Reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981. They received greater protection following reviews of the schedules published in 1988 and 1991. This means they are protected against intentional or recklessly killing and injuring and against sale or transporting for sale.

If reptiles are identified during works, stop all works and contact Whitcher Wildlife Ltd directly on 01226 753271 or at info@whitcher-wildlife.co.uk

Toolbox Talk: Great Crested Newts

The great crested newt population has suffered a major decline in Britain over the last century. Numerous ponds have been lost, unmanaged ponds have become silted up and over-shaded, development has destroyed ponds and associated terrestrial habitat and caused fragmentation of populations. The loss of grassland, scrub and woodland has resulted in fewer opportunities for foraging, dispersal and hibernation.

Whitcher Wildlife Ltd

Ecological Consultants



Identification: Great Crested Newts.

Great crested newts are dark, nearly black in colour with a speckled belly, distinctly orange in colour and with orange stripes across their toes. Great crested newts can grow up to 15cm in length.



Identification: Smooth and Palmate Newts.

Smooth newts are predominantly lighter in colour although their colour may vary from sandy coloured to very dark. Smooth newts also have a speckled orange belly but the orange colour fades to pale.



Palmate newts are similar to smooth newts but with a pinker belly and wedged feet.

Habitat.

Great crested newts live predominantly on land but breed in ponds between March and June.

Great crested newts may be found on land almost all year round. They spend the daytime under rocks or logs, in cracks, crevices or holes, or anywhere that is moist and cool and emerge at night to forage. During the winter months great crested newts hibernate deep down away from frost.

When disturbed in terrestrial habitats newts will usually be very sluggish and will take time to move away.

Legislation.

The great crested newt is listed on Schedule 5 of the Wildlife and Countryside Act 1981, recently modified by the Countryside Rights of Way Act 2000. The great crested newt is therefore subject to the provisions of Schedule 9, which make it an offence to:

- Intentionally kill, injure or take a great crested newt.
- Possess or control any live or dead specimen or anything derived from a great crested newt.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt.
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

The great crested newt is also listed on Annex II and Annex IV of The Conservation (Natural Habitats & C) Regulations 1994. Regulation 39 makes it an offence to:

- Deliberately capture or kill a great crested newt.
- Deliberately disturb a great crested newt.
- Deliberately take or destroy the eggs of a great crested newt.
- Damage or destroy a breeding site or resting place of a great crested newt.

The legislation applies to all life stages of great crested newts.

The maximum fine on conviction of offences under Section 9 and Regulation 39 currently stands at £5,000. The CroW Act 2000 amendment also allows for a custodial sentence of up to six months instead of, or in addition to, a fine. In addition, items, which may constitute evidence of the commission of an offence, may be seized and detained.

If great crested newts are identified during works, stop all works and contact Whitcher Wildlife Ltd directly on 01226 753271 or at info@whitcher-wildlife.co.uk

Identification: Great Crested Newts

If newts are identified during works the following document can be used to identify whether the newts are likely to be Great Crested Newts.

The newts should also be photographed and professional advice should be sought on the way forward.

Whitcher Wildlife Ltd

Ecological Consultants



Great crested newts can grow up to 15cm in length. They are dark, nearly black in colour with a speckled belly which is distinctly orange in colour and with orange stripes across their toes.



Great crested newts and other amphibians will often be found underneath refugia such as logs, stones and other rubbish on the ground. They will also often be found in railway ballast and in cable troughs.



If great crested newts are identified during works, stop all works and contact Whitcher Wildlife Ltd directly on 01226 753271 or at info@whitcher-wildlife.co.uk