Whitcher Wildlife Ltd.
Ecological Consultants.

BURNTWOOD.

OS REF: SE 42513 10810.

PRELIMINARY ECOLOGICAL APPRAISAL.

Ref No: **201125.**

Date: **15th November 2020.**

Cliff Edge, Cliff Road, Darfield, Barnsley, S73 9HR.
Tel. 01226 753271.
info@whitcher-wildlife.co.uk www.whitcher-wildlife.co.uk
Company No. 4401613.

TABLE OF CONTENTS.

1. INTRODUCTION.

1.1. There are plans to construct a group of pods and a lake at the eastern side of the Burntwood Hotel site.

1.2. Whitcher Wildlife Ltd has been commissioned to carry out a Preliminary Ecological Appraisal of the site in support of the planning application.

1.3. The site survey was carried out on 11th November 2020. This report outlines the findings of that survey and makes appropriate recommendations.

1.4. Appendices I and II 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. The survey was undertaken by Derek Whitcher who has over twenty years' experience of surveying for wildlife and has run his own wildlife consultancy since 1998. He has extensive experience of a wide variety of survey techniques for a variety of species of protected wildlife supplemented by attendance on a wide range of training courses through CIEEM, FSC and BCT. As a member of CIEEM he is committed to continuous professional development, a continual process of learning and career development, a condition of CIEEM membership. He holds current Natural England survey licences for barn owl, bat, great crested newt and white clawed crayfish.

****

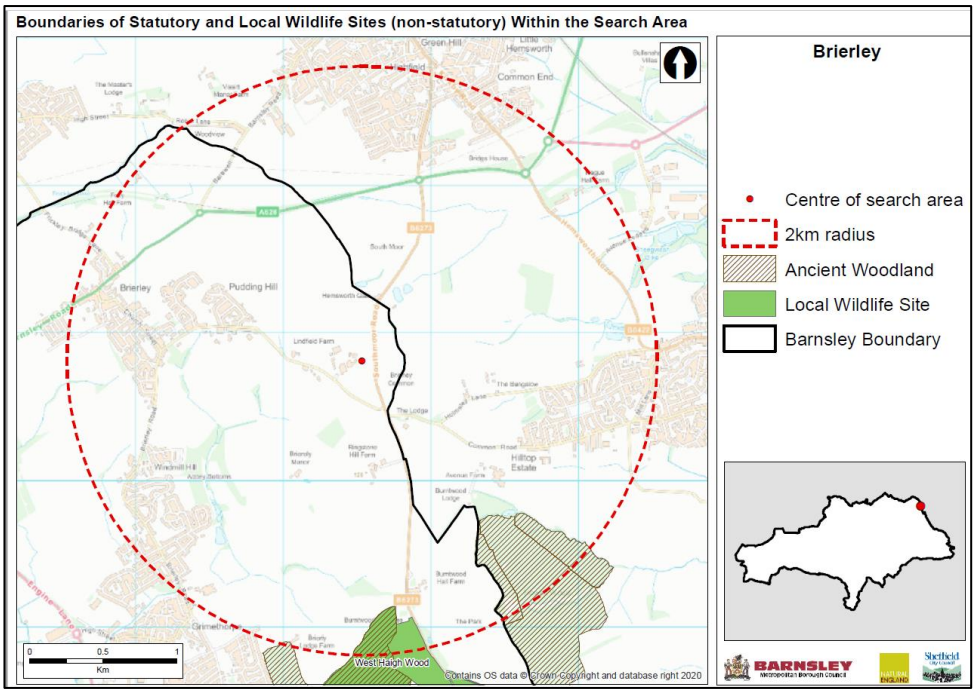
3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. Barnsley Biological Records Centre.

3.1.1.1. A desktop data search for existing records of protected species or designated sites within 2km of the surveyed area was submitted to Barnsley Biological Records Centre (BBRC).

3.1.1.2. BBRC holds one record of West Haigh Wood Local Wildlife Site approximately 1.8kn south of the site. There are no other designated sites within 2km of the survey area. This is shown on the map below.

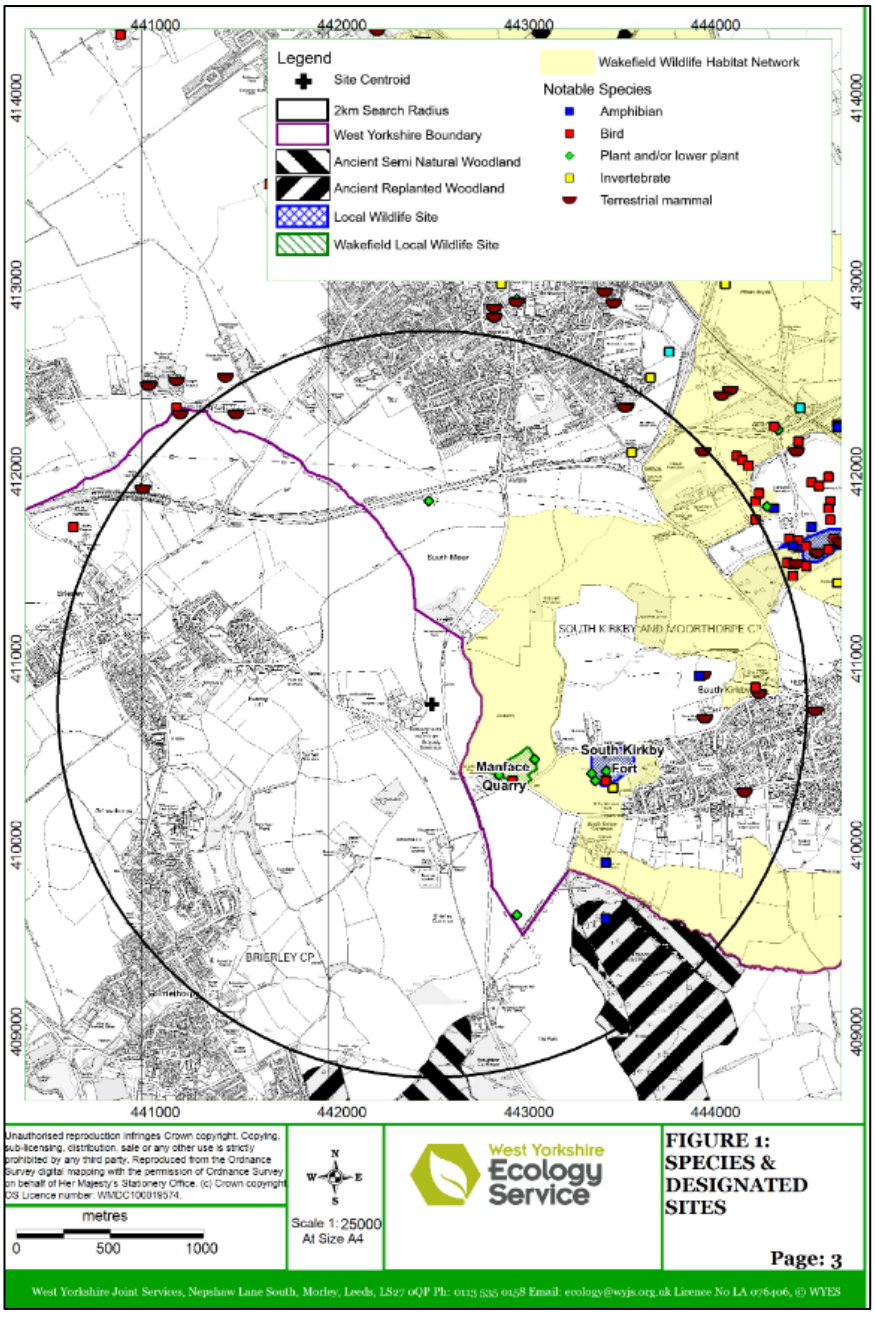


3.1.1.3. BBRC hold numerous species records, predominantly birds, insects and flower records in the surrounding area. There are a small number of records of common amphibian species and terrestrial mammals. None of the records refer to the survey area or the immediate surrounds.

3.1.2. West Yorkshire Ecology.

3.1.2.1. As the site lies near to the West Yorkshire boundary, a desktop data search for existing records of protected species or designated sites within 2km of the surveyed area was submitted to South Yorkshire Ecology Unit (SYEU).

3.1.2.2. SYEU holds records of two Local Wildlife sites within 2km, South Kirby Fort LWS and Manface Quarry LWS to the southeast of the survey area. These are shown on the map below.



3.1.2.3. SYEU hold no species records close to the survey area.

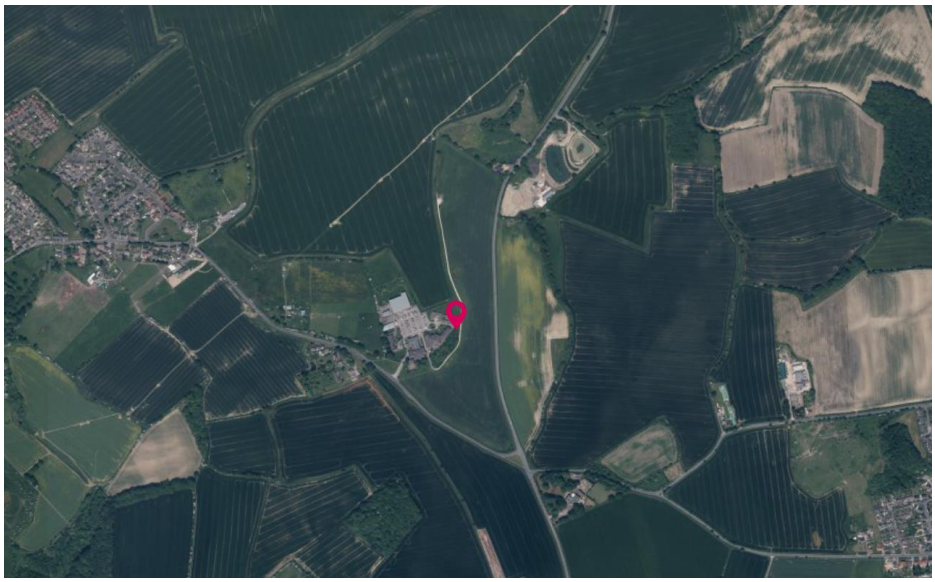
3.1.3. South Yorkshire Badger Group.

South Yorkshire Badger Group hold no badger sett records within 3km of the site.

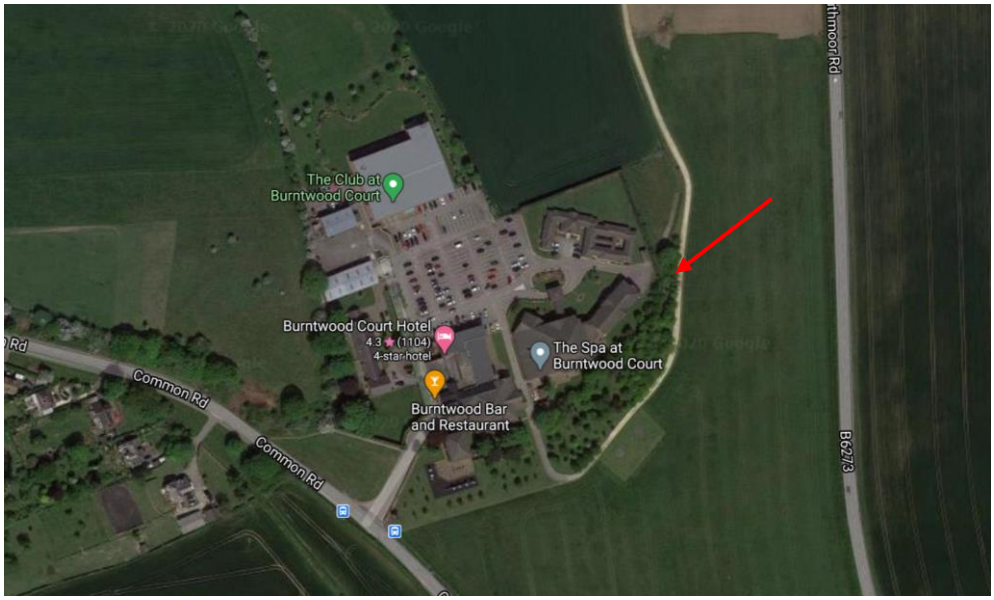
3.1.4. The data search results cannot be placed in the public domain but are available to the client on request.

3.2. The Surveyed Area.

3.2.1. The aerial photograph below shows the location of the site shown by the red symbol, and the surrounding area. The site is located to the east of Brierley, surrounded by arable farmland and small clumps of woodland.



3.2.2. The site itself lies on the eastern edge of the Burntwood Hotel complex, as shown below.



3.3. Description of Habitats.

Appendix III of this report contains an annotated map marked up with the varying habitats that are cross referenced to target notes in Appendix IV of this report. The habitats on and adjacent to the site are: -

- Amenity Grassland.
- Improved Grassland.
- Scattered Trees.
- Introduced Shrubs.
- Species Poor hedgerows.
- Bare Ground

3.3.1. Amenity Grassland

3.3.1.1. The western side of the site, to the west of the footpath has all been turfed and is closely mown, amenity grassland with a short grass sward. The dominant species are typical good quality lawn species such as annual meadow grass *(Poa annua)*, Yorkshire fog *(Holcus lanatus)*, fescue *(Festuca sp)*, and common bent *(Agrostis capillaris)*. There are no lawn weeds present. The photograph below shows the end of this area and demonstrates the lawn quality.

3.3.2. Improved Grassland.

To the east of the path the grass is a large field of improved grassland that is mown and cared for but is not the same quality as the amenity grassland. Species present include Perennial ryegrass (*Lolium perenne*), annual meadowgrass (*Poa annua*), cocksfoot (*Dactylis glomerata*) and Yorkshire fog (*Holcus lanatus*) with chickweed (*Stellaria media*), dock (*Rumex sp*.), thistle (*Cirsium sp(p)*), sow thistle (*Sonchus oleraceus*), ribwort plantain (*Plantago lanceolata*) and meadow cranesbill (*Geranium pratense).*

3.3.3. Scattered Trees.

3.3.2.1. There is a large group of scattered immature trees that have been planted down the west side of the footpath. Species include oak (*Quercus sp(p))*, beech (*Fagus sylvatica*), cherry (*Prunus serrulate*) and Douglas Fir *(Pseudotsuga Menzieii)* trees. These will remain unaffected by the construction of the proposed new pods.

3.3.4. Introduced Shrubs.

There are two borders that have been planted with ornamental shrubs. Species include lonicera (*Lonicera Nitida*), hebe (*Hebe Sp*), azalea (*Azalea japonica*), spiraea (*Spiraea Gold Flame)*, Pieris (*Pieris japonica*), sage (*Salvia officinalis)*, geum (*Geum coccineum)*, lavender (*Angustifolia Hidcote*), coral bells (*Heuchera Sp*) and ornamental grasses.

3.3.5. Species Poor Hedgerows.

There are two species poor hedgerows on the site. One is a curved feature hedge and the other a hedgerow all along the eastern side of the path. The species present are Photinia (*Photinia robusta*)

To the east of the site there is an established hawthorn hedgerow along Southmoor Road, which runs along the eastern side boundary. This comprises predominantly hawthorn (*Crataegus monogyna*).

3.3.6. Bare Ground.

There are tarmac pathways around the site.

3.4. Description of Fauna.

3.4.1. No badger setts or badger field signs were found in the survey area.

3.4.2. There are no watercourses present on the site and there is therefore no habitat for water voles, otters or white clawed crayfish present on the site.

3.4.3. None of the buildings lie within the survey area and will therefore be affected by the proposed development and therefore there will be no impact on roosting bats.

3.4.4. There are no roosting opportunities in the scattered immature trees on site and none of those trees will be affected by the proposed works.

3.4.5. The surrounding fields around the site are open and exposed and therefore assessed to provide low quality bat foraging habitat. The hedgerows and scattered trees on the site will be retained and therefore there will be no impact on the limited foraging habitat present on the site.

3.4.6. There are no ponds shown on the Ordnance Survey map in the area around the site to provide habitat for breeding great crested newts.

3.4.7. The trees and vegetation around the site provide few opportunities for nesting birds during the nesting season, which extends from March to September each year.

No nests were identified during this survey although a nesting bird survey was not undertaken.

3.4.8. The site is assessed to be unsuitable habitat for reptiles as the site is well tended lawns, flower beds and improved grassland with no opportunities for shelter or hibernation.

3.4.9. The site is assessed to be totally unsuitable habitat for hazel dormouse as it is located outside the natural range for the species.

3.4.10. The site is assessed to be totally unsuitable habitat for red squirrels.

3.4.11. There are no alien, invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) present on the site.

****

4. EVALUATION OF FINDINGS.

4.1. There are no statutory designated sites, Local Nature Reserves or Local Wildlife sites on or near the site. The proposed development will have **No Negative Impact** on such designated sites.

4.2. The only Priority Habitat as listed under the NERC Act 2006 on the site are the hedgerows and these are species poor with two hedges comprising Photinia with both hedgerows being retained. The roadside hedgerow lies outside the eastern site boundary and will remain unaffected by the proposed development. and therefore, there will be **No Negative Impact** on NERC Priority Habitats.

4.3. The trees that have been planted on the site will all be retained unaffected by this proposed development. In addition, it is planned to plant new trees and that will provide a **Positive Impact** on trees.

4.4. The habitat to be affected by the proposed development is entirely lawns and improved grassland. These are assessed to be of low ecological value and there will therefore be a **No Negative Impact** as a result of loss of these habitats.

4.5. No badger setts or badger field signs were found on the site and the site is unsuitable for badgers. Therefore, there will be **No Negative Impact** on the species.

4.6. There are no watercourses on the site and therefore no habitat for water voles, otters or white clawed crayfish. There will be **No Negative Impact** on these species as a result of the proposed development.

4.7. There are no ponds shown on the Ordnance Survey map in the area around the site to provide habitat for breeding great crested newts. Therefore, there is minimal chance of great crested newts and amphibians being present in the survey area. The proposed development of the site will include the provision of a new pond and this will therefore provide additional potential habitat for amphibians. There will be **No Negative Impact** on amphibians and great crested newts.

4.8. None of the buildings lie within the survey area and will therefore be affected by the proposed development and therefore there will be **No Negative Impact** on roosting bats.

4.9. There are no large and mature trees on the site that may provide opportunities for roosting bats. The scattered trees present contain no potential roost features and are to be retained unaffected by the proposed development. Therefore, there will be **No Negative Impact** on roosting bats.

4.10. The habitat on site that will be affected by the proposed new development is assessed to be low value bat foraging habitat and therefore the development will have **No Negative Impact** on foraging and commuting bats.

4.11. The trees and vegetation around the site provide few opportunities for nesting birds during the nesting season, which extends from March to September each year. There will be no vegetation clearance and therefore there will be **No Negative Impact** on nesting birds.

4.12. The site is assessed to be totally unsuitable for reptiles and therefore, there will be **No Negative Impact** on reptiles as a result of the proposed development.

4.13. The site is assessed to be totally unsuitable habitat for hazel dormouse, outside the natural range of the species. The proposed development will have **No Negative Impact** on the species.

4.14. The site is assessed to be totally unsuitable habitat for red squirrels, with no suitable habitat present on the site. There will be **No Negative Impact** on the species.

4.15. No alien invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) are present within the site. There is no potential for these plants to be spread in the wild and therefore there will be **No Negative Impact** on the spread of such plants.

****

5. BIODIVERSITY CALCULATIONS.

5.1. Attached to this report there is a copy of the DEFRA Metric 2.0 biodiversity calculations for the site. These show a baseline of 0.7894 Ha of semi- improved grassland, 0.062Ha of amenity grassland and 0.012Ha of paths with a total Biodiversity value of 2.74 Biodiversity Units.

5.2. In addition to this, there are 80m of ornamental hedge which has no Biodiversity value and there are 32 existing trees, which are to be retained.

5.3. Of this 0.2167Ha of semi-improved grassland will be lost with a Biodiversity value of 0.72 and replaced by the lake 0.0766Ha, the Pods and paths, 0.1401 HA. These features, particularly the lake, provide an extra 0.74 Biodiversity Units, an increase of 0.02 Biodiversity Units.

5.4. In addition, 200m of native, species rich hedgerow with a value of 1.09 Biodiversity units will be provided.

5.5. Finally, an additional thirty native species trees will be provided to landscape around the new pods. We have been unable to calculate a Biodiversity value for these trees although there will clearly be one.

5.6. However, without the trees, there will be an increase in Biodiversity units of 1.11 Biodiversity units, an increase of 40.5%, well over the target of 10% increase.

****

6. RECOMMENDATIONS.

6.1. There have been some issues with the new Defra Metric 2.0 system for calculating Biodiversity Units for the site before and after the proposed development. However, these provide a result of a net increase in Biodiversity value of 1.11 Biodiversity units or an increase of 40.5% plus the planting of an additional thirty native species trees.

6.2. It is recommended that any vegetation clearance is carried out outside the nesting bird season, which extends from March to September each year. Any vegetation clearance during the nesting season should be preceded by a nesting bird survey and any active nests identified must remain undisturbed until the young have fledged.

6.3. In line with the National Planning Policy Framework, it is recommended that biodiversity enhancements are provided on the site.

6.4. It is recommended that four nest boxes be erected on the trees that have already been planted on the site. Natural timber nest boxes are recommended to fit in with the natural site habitat.

6.5. It is further recommended that two insect boxes be provided on the site to enhance the insect population.

****

Prepared by:	
Derek Whitcher, BSc, MCIEEM, MCMI	Date: 15th November 2020.

Checked by:	
Jenny Whitcher Roebuck MCIEEM.	Date: 18th November 2020.

7. 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.

Joint Nature Conservation Committee. 2004 (ed.). ***Handbook for Phase 1 habitat survey: A technique for environmental audit.*** JNCC, Peterborough.

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.

Strachan R, Moorhouse T, Gelling M. 2011. ***Water Vole Handbook***. 3rd edition. WILDCRU (Wildlife Conservation Research Unit), Oxford.

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 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.

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. BAT INFORMATION.

Ecology

There are currently 18 species of bat residing in Britain, 17 of which 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

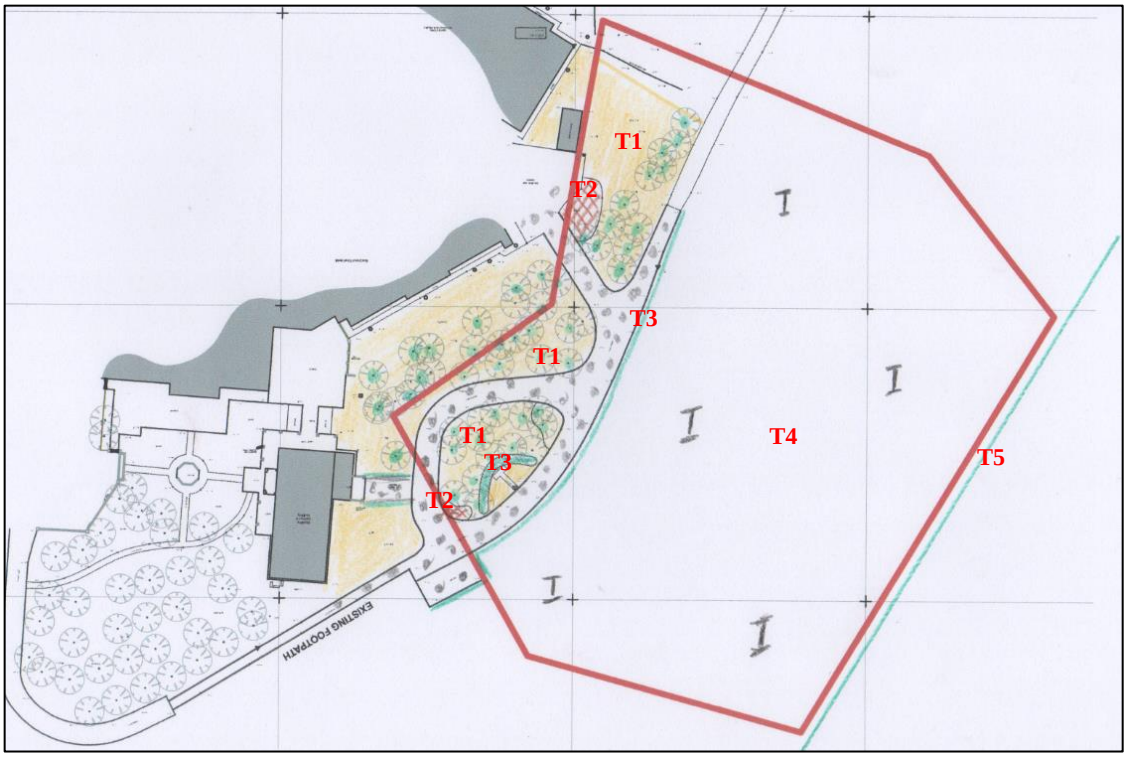
also listed under section 41 of the Natural Environment and Rural Communities Act (2006) making them species of principal importance.

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.

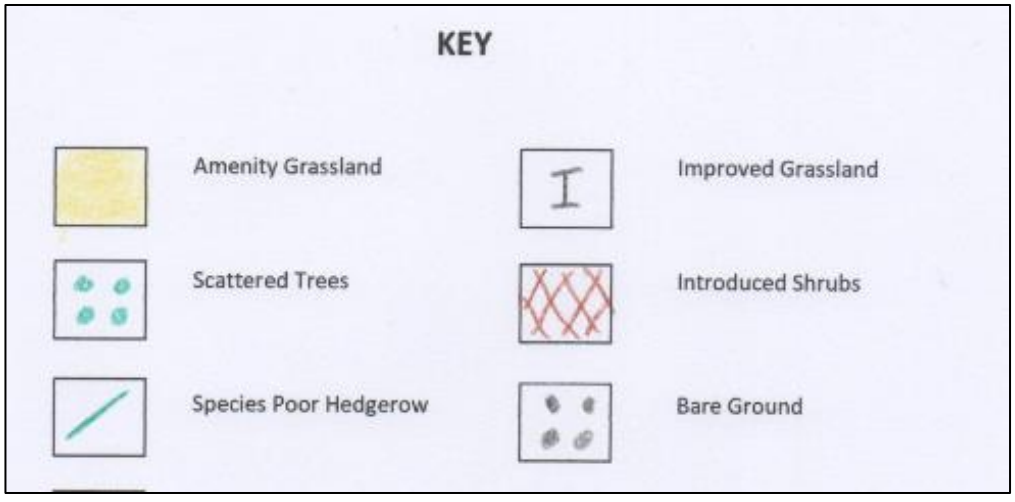
The UK has designated maternity and hibernacula areas as Special Areas of Conservation (SAC's) under the Habitats Directive. Implementation of the UK Biodiversity Action Plan also includes action for a number bat species and the habitats which support them.

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

Appendix III. ANNOTATED MAP OF THE SURVEY AREA.



Please note maps are being hand drawn during home working due to the Covid pandemic.



Appendix IV. TARGET NOTES.

T1. Amenity Grassland with Scattered Native Trees.

T2. Flower Boarders.

T3. Species Poor Hedgerows.

T4. Field of improved Grassland.

T5. Species poor hawthorn hedgerow outside the site boundary.

Appendix V. DEVELOPMENT PLAN.