

**Whitcher Wildlife Ltd.
Ecological Consultants.**



DANCE LANE, CRANE MOOR.

OS REF: SE 30735 01462

ECOLOGICAL IMPACT ASSERSMENT.

Ref No: 220848/EcIA/1.

Date: 1st February 2023.

TABLE OF CONTENTS.

	Page Number
1. INTRODUCTION.	3
2. SURVEY METHODOLOGY.	4
3. BASELINE ECOLOGY.	8
4. ASSESSMENT OF IMPACTS, MITIGATION AND RESIDUAL EFFECTS.	18
5. COMPENSATION AND ENHANCEMENT MEASURES.	22
6. REFERENCES.	24
Appendix I. NESTING BIRD INFORMATION.	25
Appendix II. BAT INFORMATION.	26
Appendix III. ANNOTATED MAP OF THE SURVEY AREA.	28
Appendix IV. TARGET NOTES.	29
Appendix V. DEVELOPMENT PLAN.	30
Appendix VI. HABITAT CRITERIA ASSESSMENT TABLES.	31

1. INTRODUCTION.

1.1. There are plans to develop an area of land off Dance Lane, Crane Moor.

1.2. Whitcher Wildlife Ltd has been commissioned to carry out a Preliminary Ecological Appraisal of the site in support of a planning application for the site. That site survey was carried out on 14th September 2022.

1.3. That report has been converted to an Ecological Impact Assessment as outlined here.

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 Meryll 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. The UK Biodiversity Action Plan (UKBAP) (Anon 1995), designed to fulfil the Convention on Biological Diversity in 1992, to which the UK is a signatory, has produced a national priority species list with all species and habitats included having Species and Habitat Action Plans. Regional and local BAPs have also been designed to develop plans for species and habitats of nature conservation importance at regional and local levels. This site lies within the area covered by the Kirklees Biodiversity Action Plan (BAP) and takes due consideration of the Habitat and Species Action Plans within that BAP.

2.16. The survey was undertaken by Derek Witcher 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

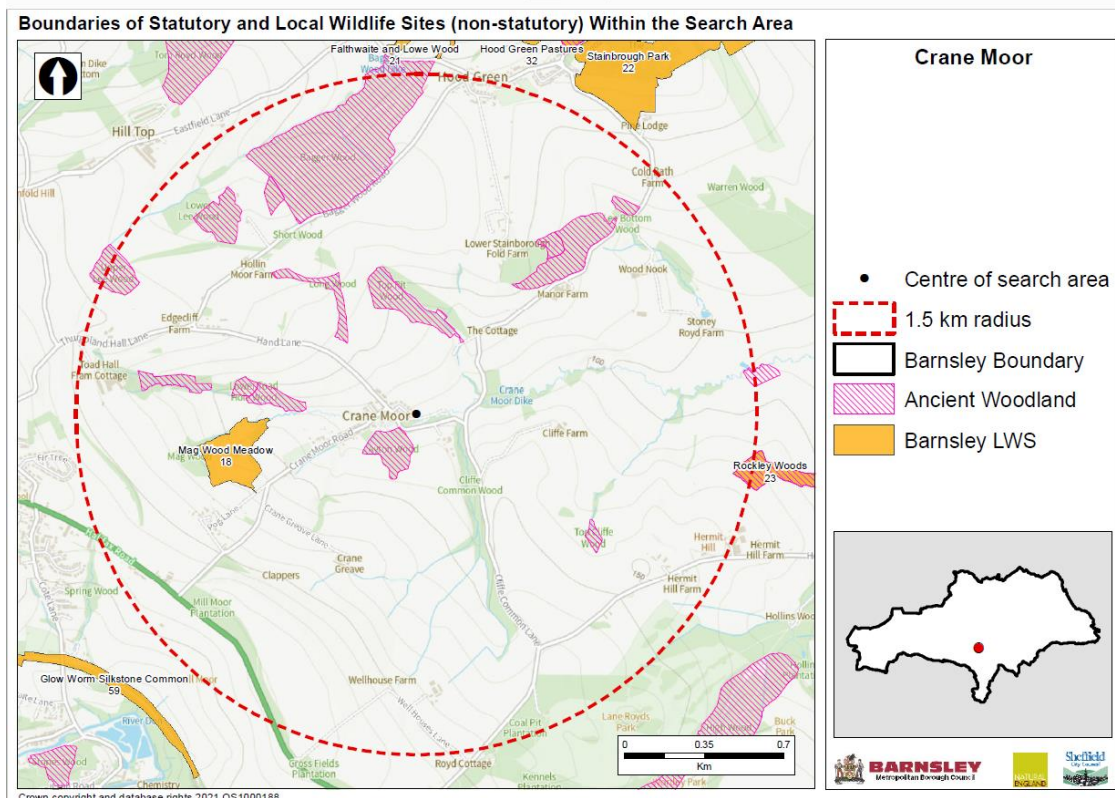
training courses through CIEEM, FSC and BCT. As a member of CIEEM he is committed to continuous professional development, a continual process of learning and career development, a condition of CIEEM membership. He holds current Natural England survey licences for barn owl, bat, great crested newt and white clawed crayfish.

3. BASELINE ECOLOGY.

3.1. Data Search Results.

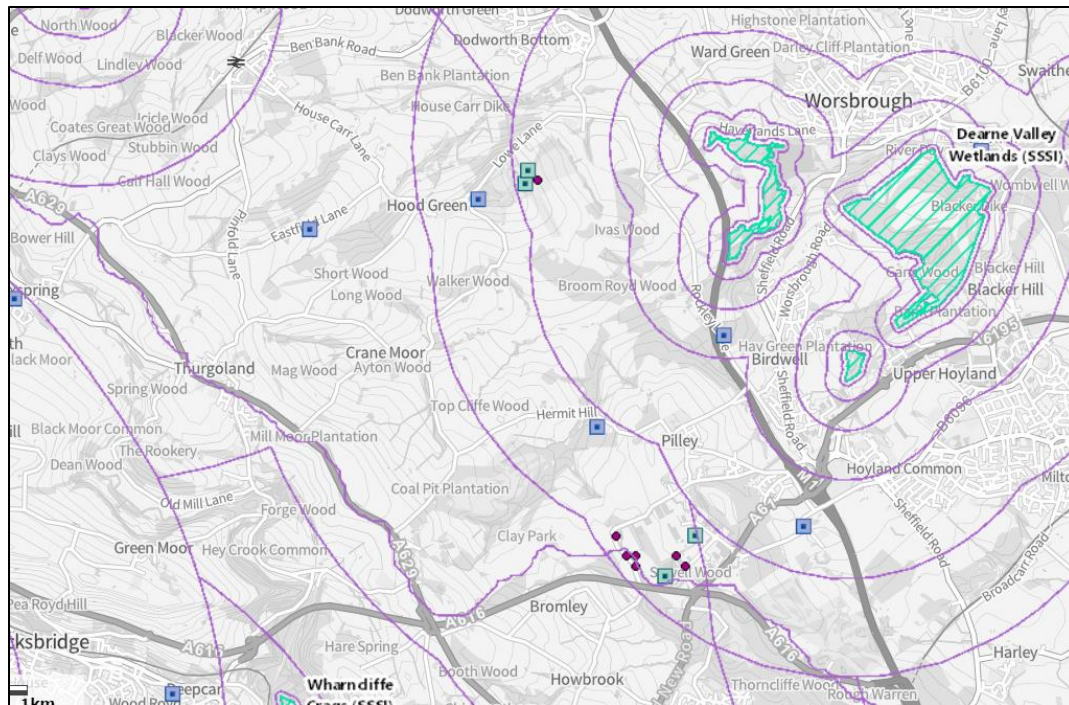
3.1.1. A desktop data search for existing records of protected species and designated sites within 2km of the surveyed area was submitted to Barnsley Biological Records Centre (BBRC).

3.1.2. There is one Local Wildlife Site to the southwest of the site but at sufficient distance to be unaffected by the proposed new dwelling.



3.1.3. Consultation with the MAGIC website shows there are no designated sites close to the survey area. The closest is the Dearne Valley Wetlands SSSI on the opposite side of the M1 Motorway.

3.1.4. The MAGIC website shows there have been a number of bat (blue squares) and great crested newt licences (green squares) granted in the surrounding area but none close to the survey area.



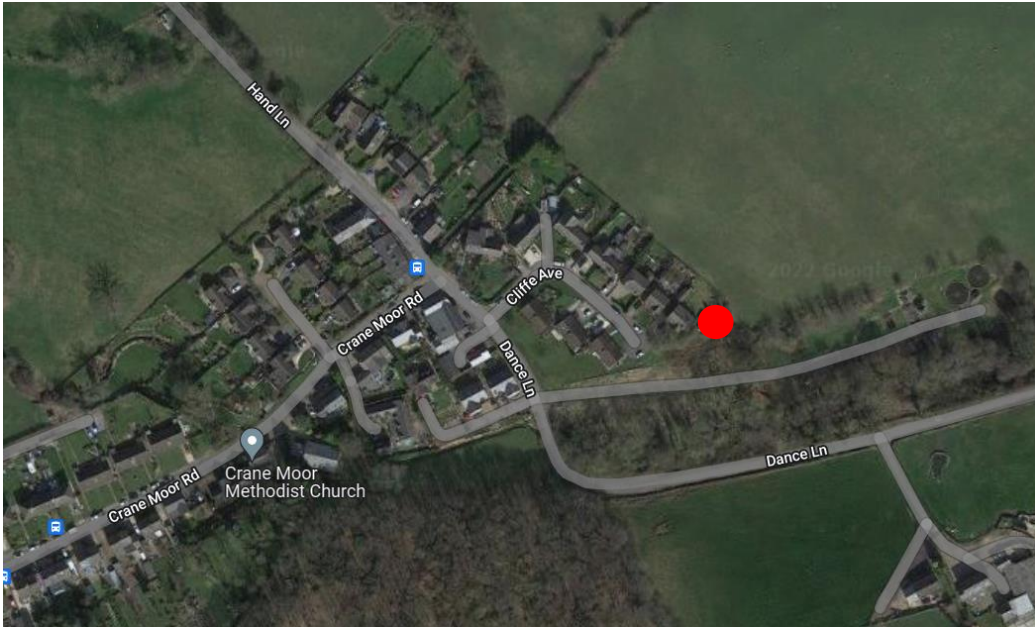
3.1.5. There are abundant species records in the surrounding area. These include records of badgers and hedgehogs, occasional historic records of water voles, one record of a grass snake at Hood Green and occasional records of common frog.

3.1.6. A data search request was submitted to South Yorkshire Badger Group who hold records of a number of badger setts and clan territories around Crane Moor but none in the immediate area around the site.

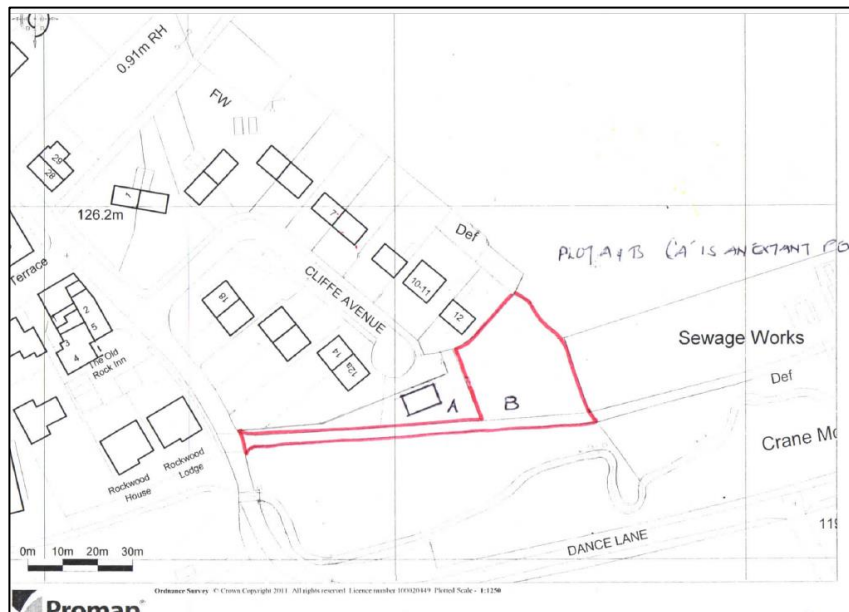
3.1.7. The data search results cannot be placed in the public domain but will be available to the client on request.

3.2. The Surveyed Area.

3.2.1. The aerial photograph below shows the location of the site shown by the red dot and the surrounding area. The site is located at the south eastern corner of Crane Moor with open arable farmland to the east and a strip of woodland to the south.



3.2.2. The drawing below shows the site boundary, an area of land accessed along the existing track to the sewage works.



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:

- Dense Scrub.
- Scattered Trees.
- Improved Grassland.
- Bare Ground.
- Species Poor Hedgerow.
- Fence.

3.3.1. Dense Scrub.

3.3.1.1. The predominant habitat on the site is a large area of bramble scrub. Species present include bramble (*Rubus fruticosus*) alder (*Alnus glutinosa*) saplings, elder (*Sambucus nigra*) saplings, hawthorn (*Crataegus monogyna*) saplings, with nettle (*Urtica dioica*), bindweed (*Calystegia sepium*), hogweed (*Heracleum sphondylium*), false oat grass (*Arrhenatherum elatius*), cocksfoot (*Dactylis glomerata*), dock (*Rumex sp.*), lesser burdock (*Arctium lappa*), thistle (*Cirsium sp.*), white clover (*Trifolium pratense*), plantain (*Plantago lanceolata*), dandelion (*Taraxacum officinale*), cow parsley (*Anthriscus sylvestris*), herb Bennett (*Geum urbanum*) and creeping buttercup (*Ranunculus repens*).



3.3.1.2. The habitat falls under the category of “scrub”. The following table shows the results of the habitat condition assessment. The habitat passes two criteria leading to a poor result. Appendix VI provides more detail of the questions below, should it be needed.

Condition Assessment Criteria	Condition Achieved (Y/N)
1 – Representative of UKHab description	No
2 – Age range	No
3 – Non-native species	Yes
4 – Edge vegetation	Yes
5 – Clearings, glades or rides	No
Condition Assessment Result	Condition Assessment Score
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)

3.3.2. *Scattered Trees.*

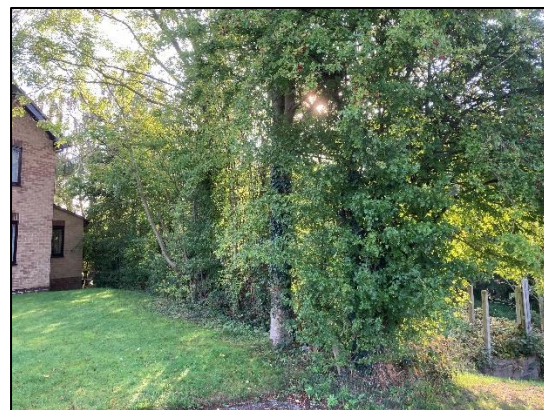
3.3.2.1. There are two large, mature oak trees on the site, close to the boundary with the sewage works, target note T1 in the target note list. These are of such an age and maturity that they are likely to contain potential roost features (PRF) for bats and are assessed to be of moderate potential for roosting bats.



3.3.2.2. There are also two immature ash trees along the bottom of the site close to the access track. These are of insufficient age and maturity to contain potential roost features (PRF) for bats and are assessed to have negligible potential for roosting bats.



3.3.2.3. Along the top of the site, between the survey area and the houses on Cliff Avenue there is a line of eight semi-mature trees probably the remnants of an old and overgrown hedgerow. Species present are ash (*Fraxinus excelsior*) and hawthorn (*Crataegus monogyna*).



3.3.2.4. This habitat falls under the category of “urban trees”. The following table shows the results of the habitat condition assessment. The habitat passes five criteria leading to a good result. Appendix VI provides more detail of the questions below, should it be needed.

Urban Trees

Condition Assessment Criteria	Condition Achieved (Y/N)
1 – Native species	Yes
2 – Tree canopy	Yes
3 – Mature/veteran trees	No
4 – Anthropogenic activities	Yes
5 – Micro-habitats	Yes
6 – Ground vegetation	Yes
Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 of 6 criteria	Good (3)
Passes 3 or 4 of 6 criteria	Moderate (2)
Passes 0, 1 or 2 of 6 criteria	Poor (1)

3.3.3. Improved Grassland.

3.3.3.1. The access to the site is a long and straight access track to the sewage works. This comprises a grass strip down between the two wheel tracks and two strips along either side that is regularly mown and is assessed to be low quality improved grassland. Species present include Yorkshire fog (*Holcus lanatus*), false oat grass (*Arrhenatherum elatius*), rough hawkbit (*Leontodon hispidus*), ragwort (*Senecio jacobaea*), cocksfoot (*Dactylis glomerata*), dock (*Rumex sp.*), thistle (*Cirsium sp.*), white clover (*Trifolium pratense*), plantain (*Plantago lanceolata*), dandelion, (*Taraxacum officinale*), cow parsley (*Anthriscus sylvestris*), herb Bennett (*Geum urbanum*) and Creeping buttercup (*Ranunculus repens*).



3.3.3.2. The habitat falls under the category of “modified grassland”. The following table shows the results of the habitat condition assessment. The habitat passes five criteria leading to a moderate result. Appendix VI provides more detail of the questions below, should it be needed.

Grassland – low value (modified grassland)

1	There must be 6-8 species per m ² . Note - if a grassland has 9 or more species per m ² it should be classified as a moderate distinctiveness grassland habitat type. NB - this criterion is non-negotiable for achieving good condition.	Fail
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail
3	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Pass
4	Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Pass
5	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Pass
6	Cover of bracken less than 20%.	Pass
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species ¹ make up less than 5% of ground cover.	Pass

Condition assessment results:	Condition assessment score:
Passes 6 or 7 of 7 criteria including non-negotiable criterion 7	Good (3)
Passes 4 or 5 of 7 criteria; OR Passes 6 of 7 criteria excluding non-negotiable criterion 7	Moderate (2)
Passes 0, 1, 2 or 3 of 7 criteria	Poor (1)

3.3.4. Bare Ground

3.3.4.1. There are two strips of bare ground down the access track worn by car tyres and covered with chippings.

3.3.4.2. There is no habitat criteria assessment for bare ground.

3.4. Description of Fauna.

3.4.1. No badger setts or badger field signs were found in the survey area. Badgers are common in the surrounding area but there are no known setts in the immediate surrounding area.

3.4.2. There are no watercourses present within or near to the survey area to provide habitat for water voles, otters or white clawed crayfish. Crane Moor Dike flows to the south of the site but is separated from the site by the access track to the sewage works and a bank of dense bramble.

3.4.3. There are no buildings present on the site to provide habitat for roosting bats.

3.4.4. There are trees on site of sufficient maturity to contain features that may provide habitat for roosting bats. In particular, there are two large and mature oak trees on the eastern end of the site that are of an age and size that would be expected to contain potential roost features and that have been assessed to have a moderate potential for roosting bats.

3.4.5. The habitat around the site is assessed to have a low to moderate potential for foraging bats. The best foraging habitat on the site is around the site perimeter and this will be retained.

3.4.6. There are no ponds on the site or in the surrounding area. There is therefore no habitat in the surrounding area for breeding great crested newts and amphibians.

3.4.6.1. Barnsley Council have suggested there is a pond to the south of the site, separated from the site by Crane Moor Dike and a road. The pond is a stone construction and plastic lined, created as a duck pond for the geese that are kept in the field. There is no emergent vegetation in the pond and no perimeter vegetation. The following photograph shows the pond and the table shows the results of a Habitat Suitability Index assessment of the pond with a result of 0.31. This is a very poor result with a probability of less than 3% that great crested newts would breed in the pond.



Pond ref		
SI1 - Location	1	
SI2 - Pond area	0.25	
SI3 - Pond drying	0.9	
SI4 - Water quality	0.33	
SI4 - Shade	1	
SI6 - Fowl	0.01	
SI7 - Fish	1	
SI8 - Ponds	0.1	
SI9 - Terr'l habitat	0.33	
SI10 - Macrophytes	0.3	
HSI	0.31	

3.4.6.2. This pond is unsuitable for breeding amphibians and is separated from the site by two barriers to movement.

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

3.4.8. The site is assessed to be unsuitable habitat for reptiles, as it is a sloping site that is shaded and adjacent to a residential area.

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

3.4.10. The site is assessed to be totally unsuitable habitat for red squirrels and is located outside the natural range for the species.

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.

3.4.12. There are hedgehog records in the surrounding area, so it is possible they live in the surrounding area, but no signs of their presence were found during the survey.

4. ASSESSMENT OF IMPACTS, MITIGATION AND RESIDUAL EFFECTS.

4.1. Designated Sites.

4.1.1. Assessment.

There are no statutory designated sites or Local Nature Reserves on or close to the site. There is one Barnsley Local Wildlife Site, Mag Wood Meadow, to the southwest of the site but at sufficient distance to be unaffected by the proposed new dwelling.

4.1.2. Mitigation.

There is no requirement for mitigation for designated sites.

4.1.3. Residual Effects.

The proposed development will have **No Negative Residual Impact** on such sites.

4.2. Habitats.

4.2.1. Assessment.

4.2.1.1. There are no Priority Habitats as listed under the NERC Act 2006 present on the site.

4.2.1.2. The main habitat present on the site and that will be affected by the proposed development will be the area of scrub. The area habitats pre-development have been assessed and are shown in the table below.

Habitat Type	Area in ha.	Distinctiveness	Condition Assessment	Biodiversity Units.
Bramble Scrub	0.087	Medium	N/A	0.35
Urban trees	0.454	Medium	Good	5.45
Total	5.94			5.80Bu

4.2.2. Mitigation.

4.2.2.1. There is no requirement for mitigation for priority habitats.

4.2.2.2. The site is to be planted with an area of amenity grassland around the new dwelling with grass and wildflower mix around that. The existing trees will be retained and enhanced by planting an additional ten trees on the site and a native species hedgerow around the site boundary.

4.2.2.3. This gives a residual area Biodiversity value to the site post development, as shown below.

Habitat Type	Area in ha.	Distinctiveness	Condition Assessment	Biodiversity Units.
Modified grassland – amenity.	0.0219	Low	Fairly poor	0.06
Modified grassland and wildflowers.	0.0463	Low	Moderate	0.16
Developed land sealed surface.	0.0192	V. Low	N/A	0.00
12 New Urban trees	0.049	Medium	Moderate	0.15
Retained Urban Trees.	0.454	Medium	Good	5.45
Total	0.09			5.82Bu

4.2.2.4. There are no linear habitats on site pre-development but 50m of native species hedgerow will be planted during the development. This is shown in the table below.

Habitat Type	Linear in km.	Distinctiveness	Condition Assessment	Biodiversity Units.
Native, Species-rich hedgerow	0.05	Medium	Moderate	0.33
Total	0.05			0.33Bu

4.2.3. Residual Effects.

4.2.3.1. These figures have been processed through the Metric 3.1 and these show an increase in area Biodiversity value from 5.80 Bu to 5.82Bu, a 0.41% increase in area Biodiversity values.

4.2.3.2. In addition, 50m of native species hedgerow are to be planted. This provides an additional 0.33 Biodiversity Units.

4.2.3.3. Therefore, the proposed development will have a **Minor Positive Impact** on habitats on the site.

4.3. Fauna Species.

4.3.1. Bats.

4.3.1.1. Assessment.

4.3.1.1.1. There are trees on site of sufficient maturity to contain features that may provide habitat for roosting bats. In particular, there are two large and mature oak trees at the eastern end of the site that are assessed to have moderate potential for roosting bats. Removal of these trees would have a major impact on any bats roosting within those trees.

4.3.1.1.2. The habitat around the site is assessed to have a low to moderate potential for foraging bats. The best foraging habitat on the site is around the site perimeter and it is anticipated that this will be retained.

4.3.1.2. Mitigation.

The mature trees on the site and the habitat around the site perimeter will be retained.

4.3.1.3. Residual Effect.

There will be **No Negative Residual Impact** on roosting or foraging bats.

4.3.2. Birds.

4.3.2.1. Assessment.

The trees and scrub around the site provide opportunities for nesting birds during the nesting season, which extends from March to September each year. Works undertaken on the site during the nesting season will potentially have a high negative impact on any active nests present.

4.3.2.2. Mitigation.

4.3.2.2.1. The existing trees will be retained on site.

4.3.2.2.2. All scrub will be cleared from the site outside the nesting bird season, which extends from March to September each year.

4.3.2.2.3. Should it be necessary to clear vegetation during the nesting season, a nesting bird survey will be carried out by a suitably experienced ecologist no more than two days before that vegetation clearance. In the event an active nest is found, the nest, plus a suitable stand off around the nest, will be left undisturbed until the young have fledged.

4.3.2.2.4. Additional nesting habitat will be provided in the twelve new trees to be planted on site and in the new native species hedgerow.

4.3.2.3. Residual Effects.

There will be No Residual Negative Impact on nesting birds as a consequence of the development.

5. COMPENSATION AND ENHANCEMENT MEASURES.

5.1. One integrated bat brick will be installed in the new dwelling.

5.2. The integrated bat brick will be placed high in a gable end wall and will be a Habibat integrated bat brick of the design shown below colour matched to the brick or stone finish of the wall, or equivalent.



5.3. Two integrated swift nest boxes will also be installed high in a gable end wall and will be as shown below or equivalent.



5.4. All garden fences will be furnished with at least one 130mm square access in each run of fence to enable hedgehogs free access to move around the site and between gardens.

Prepared by:	
Derek Whitcher, BSc, MCIEEM, MCMI	Date: 1 st February 2023.
Checked by:	
Ruth Georgiou. BSc, MCIEEM.	Date: 1 st February 2023.

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.
- 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 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 of 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



Site: Crane Moor

Prepared by: Mitchel Greenhalgh BSc

Reference: 220848

Date: 26th September 2022



Appendix IV. TARGET NOTES.

T1. Two mature oak trees

T2. Two immature ash trees

T3. Row of semi mature ash and hawthorn trees.

T4. Access road to the site.

Appendix V. DEVELOPMENT PLAN.

1) This drawing and the design and details depicted therein are the copyright of Peter Dimberline Chartered Architect.
 2) All dimensions on this drawing are to be checked by the Contractor and any discrepancies are to be reported to the Architect.
 3) Do not scale critical dimensions off this drawing.
 4) Contractor to ensure that all Health & Safety requirements (CMA regulations) in relation to this project will be complied with.



- Soft landscape areas:**
- existing water
 - existing trees
 - existing garden
 - existing lawn
 - existing paved area
 - existing driveway
 - existing fence
 - existing boundary
- Hard landscape areas:**
- existing water
 - existing trees
 - existing garden
 - existing lawn
 - existing paved area
 - existing driveway
 - existing fence
 - existing boundary

Proposed development plan at a scale of 1:250
 to be read in conjunction with the ecology report

Revision: PETER DIMBERLINE Dip Arch, RIBA CHARTERED ARCHITECT 2 TIPSEY COURT, STAINCROSS BARNSELY, S75 6FZ tel/fax (01225) 392947 email: pdimberline@esca1.co.uk	
CLIENT	PDCA
PROJECT	Proposed detached dwelling
LOCATION	Plot 'B', Site off Dance Lane, Crane Moor, Barnsley
DRAWING	Proposed development plan to be read in conjunction with the ecology report
SCALE	1:250
DATE	Sep' 22
DEWG. No.	2021/08/04
DRAWN BY	PD

Appendix VI. HABITAT CRITERIA ASSESSMENT TABLES.

Scrub Assessment Criteria

Condition Assessment Criteria	
1	Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).
2	There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.
3	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition make up less than 5% of ground cover.
4	The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).
5	There are clearings, glades or rides present within the scrub, providing sheltered edges.

Grassland (low distinctiveness) Assessment Criteria

Condition Assessment Criteria	
1	There must be 6-8 species per m ² . If a grassland has 9 or more species per m ² it should be classified as a medium distinctiveness grassland habitat type. NB - this criterion is essential for achieving moderate condition.
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
3	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.
4	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.
5	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).
6	Cover of bracken less than 20%.
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).

Urban Trees Assessment Criteria

Condition Assessment Criteria	
1	The tree is a native species(or more than 70% within the block are native species).
2	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).
3	The tree is mature ² or veteran ³ (or more than 50% within the block are mature ² or veteran ³).
4	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime so the trees retain >75% of expected canopy for their age range and height.
5	Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark
6	More than 20% of the tree canopy area is oversailing vegetation beneath.