Whitcher Wildlife Ltd.
Ecological Consultants.

MAPPLEWELL MEADOWS CARAVAN PARK.

OS REF: SE 337 091.

PRELIMINARY ECOLOGICAL APPRAISAL.

Ref No: **220178/REV1.**

Date: **26th January 2022.**

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1. INTRODUCTION.

1.1. A application is being prepared to allow the use of a small area of grassland for caravan camping on an area of land that is part of the Mapplewell Meadows site.

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

1.3. That survey was carried out on 24th January 2022. This report outlines the findings of all surveys and makes appropriate recommendations.

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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.

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

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

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

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

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

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

* Holes, cracks or crevices.
* Bat Droppings.

2.7.1. All survey work was carried out in line with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition),* with an assessment of the buildings suitability for roosting bats made in accordance with these guidelines.

2.7.2. 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.

2.8. 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.

2.9. 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.

2.10. 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*.

2.11. 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.

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

2.13. 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.

2.14. 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.

2.15. The Preliminary Ecological Appraisal survey was carried out by Ruth Georgiou BSc MCIEEM. Since 2004 Ruth has had experience in a professional capacity as a Wildlife Consultant carrying out ecology surveys and phase I habitat surveys. As a full member of CIEEM Ruth is subject to peer review on an annual basis. Ruth holds Natural England survey licences in respect of bats, great crested newts and white clawed crayfish and has held her own or has been named ecologist on site specific licences for badgers, great crested newts and bats. She also holds a degree in Environmental Science (BSc) and has successfully completed a number of courses run by CIEEM, BCT and FSC in the relative protected species, carrying out phase I habitat surveys and BREEAM assessments.

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3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. A data search was submitted to Sheffield Biological Records Centre for records of protected species and non-statutory designated sites within 1.5km of the survey area.

3.1.2. The results show that there are various bird species in the area, records of common toads in ponds in the area, the closest of which is 105m away. There are a number of records of great crested newts in Barnsley Canal, but these lie just over 500m from the survey area.

3.1.3. The results show that there are two Local Wildlife Sites within 1.5km. One of these is Barnsley Canal at Wilthorpe located 440m away and the second is Mapplewell Tip located 1.2km away.

3.1.4. An internet data search was carried out for any statutory designated sites within 2km. No such sites were found.

3.1.5. A copy of the data search results can be provided to the client upon request but must not be placed in the public domain.

3.2. The Surveyed Area.

3.2.1. The survey area lies on a large site that is known as Mapplewell Meadows. Mapplewell Meadows is a former mining tip. The site is utilised for activities such as keeping animals, horse trekking, fishing and there is a public café on the site that is open during the summer months attracting visitors and walkers to the site. The owners also try to make enhancements for wildlife where feasible.

3.2.2. The survey area is a small area of grass within the Mapplewell Meadows site. To the north there are open horse paddocks. On all other side the land is a former mining tip that has been planted with trees that have generated into woodland and scrub habitats. The soils are very shallow therefore the trees are generally of no considerable size. This has been graded down towards the River Dearne that lies just over 300m to the south and dirt tracks and grass rides have been created through these habitats.

3.2.2. The aerial map below shows the location of the survey area, indicated by the red arrow, and the surrounding area.



3.2.3. The survey area comprises part of an open area of grassland that is managed by regular cutting and the area is subject to regular disturbance. The limits of the survey area are outline in red in the aerial map below. The red dotted line shows the access to and from the new camp site along an existing dirt track.



3.3. Description of Habitats.

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

- Improved Grassland.
- Bare Ground.
- Dense Scrub.
- Dry Ditch.
- Standing Water.

3.3.2. Improved Grassland.



3.3.2.1. The area that lies within the red line of the proposed development is entirely improved grassland. This is grassland that is managed by regular cutting and the area is also used by the local pony club and dog training club, who take vehicles including horse trailers onto this area.

3.3.2.2. The grass was short in length with some bare patches and the species identified was predominantly perennial ryegrass *(Lolium perenne)* and clover *(Trifolium sp)* with some cocksfoot *(Dactylis glomerata)*, crested dogstail *(Cynosurus cristatus)* and creeping buttercup *(Ranunculus repens)*. These are all species indicative of high levels of nutrients and regular management.

3.3.3. Bare Ground.

3.3.3.1. There is a patch of ground adjacent to the west of the survey area that has been cleared and now comprises bare ground, although if left untouched it is anticipated this will quickly regenerate back into grassland and scrub. This area is shown in the photograph below.



3.3.3.2. The dirt track that will be the access to and from the proposed camp site has also been mapped as bare ground. This is shown in the photographs below.





3.3.4. Dense Scrub.



The area of grassland in which the survey area is located is enclosed by dense scrub habitat. This includes silver birch *(Betula pendula)*, oak *(Quercus sp)*, cherry *(Prunus sp)*, blackthorn *(Prunus spinosa)*, dogrose *(Rosa canina)*, bramble *(Rubus fruticosus)*, broom *(Cytisus scoparius)* and alder *(Alnus glutinosa)*.

3.3.5. Dry Ditch.



There is a small dry ditch that extends parallel to the western boundary of the survey area. This a small channel approximately 0.4m wide and 0.3m deep. It is overgrown with the same grass species listed in the survey area adjacent, as well as some tufted hair grass *(Deschampsia cespitosa)*, lesser knapweed *(Centaurea nigra)* and common fleabane *(Pulicaria dysenterica)*.

3.3.6. Standing Water.



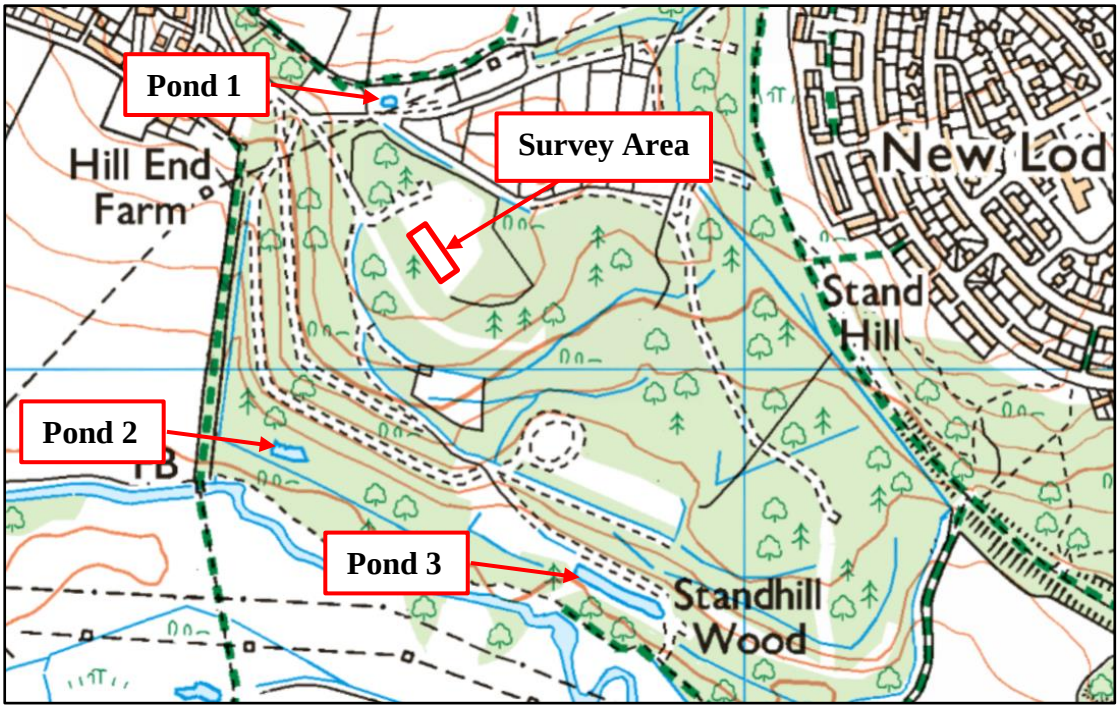
This is a 10m section of the ditch described above that held some water at the time of this survey. This is at the northern end of the ditch where the access track intersects the ditch. This has all the same species listed above as well as some soft rush *(Juncus effusus)* that suggests that this section of the ditch often holds water.

3.4. Description of Fauna.

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

3.4.2. There is a dry ditch located immediately adjacent to the survey area with a 10m wet section. This does not provide any habitats suitable for water voles, otters or crayfish as it doesn't provide sufficient water and it is not connected to any main water bodies.

3.4.3. There are three ponds shown on maps within 500m of the survey area. These are indicated on the OS map below.



3.4.4. Pond 1 is located approximately 125m from the survey area. This is a small pond that is enclosed by some well managed grassland and used vehicle tracks making the pond susceptible to contamination. The adjacent land is mostly well grazed horse paddocks adjacent. There is a hedgerow to the north and an area of scrub to the south that provides some limited connectivity to and from the pond for great crested newts, although they would have to cross the vehicle tracks and areas of improved grassland.

3.4.5. Pond 1 is shown in the photograph below. It is a small with a maximum depth of approximately 1m. It has a wide margin of peripheral vegetation. There is evidence of trampling at one point on the bank. The pond has a HSI score of 0.59, which classifies the pond as ‘below average’ suitability for great crested newts. It is therefore assessed as unlikely that great crested newts are present in this pond.



3.4.6. Pond 2 is located approximately 245m and Pond 3 approximately 300m from the survey area, although these ponds are located at the bottom of a slope therefore the distance on land will be greater. There is an abundance of scrub and woodland habitats that provides high value terrestrial habitat for newts between these ponds and the survey area therefore there is very little need for any potentially present great crested newts to travel between the pond and the survey area.

3.4.7. Pond 3 is also a well-stocked fishing pond and is highly unlikely to contain great crested newts.

3.4.8. The data search results suggest that amphibian surveys were carried out of the ponds in the area during 2012 and the only amphibians identified on this site were common toad.

3.4.9. There are records of great crested newts just in excess of 500m south of the survey in and around Barnsley Canal, but the River Dearne acts as a barrier to movement between this population of great crested newts and the survey area and Ponds 1, 2 and 3.

3.4.10. The habitat within the survey area is grassland habitat that is well managed and regularly used by animals, people and vehicles and provides no terrestrial value to great crested newts.

3.4.11. There are no buildings or trees within the survey area to provide potential habitat for roosting bats.

3.4.12. The survey area provides no value for foraging and commuting bats. The scrub and woodland habitats adjacent provide good value habitat for foraging and commuting bats.

3.4.13. The grassland habitat within the survey area in its current state provides no potential for nesting birds. Potential for nesting birds is limited to the adjacent scrub and woodland habitats adjacent.

3.4.14. The survey area is assessed to provide negligible potential for reptiles due to the area being exposed to disturbance from humans, animals and vehicles. It is likely that any potential reptile species will utilise the habitats closer to the ponds towards the bottom of the Mapplewell Meadows site.

3.4.15. There are no habitats suitable for hazel dormouse or red squirrel within the survey area, and the site lies outside the natural range for both these species.

3.4.16. No invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) were identified within the survey area.

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4. EVALUATION OF FINDINGS.

4.1. The data search results show that there are two LWS's located 440m and 1.2km from the survey area. The proposed works include the creation of a small number of caravan camping pitches, these works will be very low impact and will have no impact on these designated sites.

4.2. The survey area comprises entirely of improved grassland. This is managed and disturbed grassland that is of no significant ecological value. This area, including an route extending up to the existing track to the north, was input into the DEFRA Metric 3.0 as shown below.

4.3. The baseline habitat Biodiversity Units (Bu) on the site was calculated at 0.32 Bu as shown in the table below.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Modified grassland	0.16	Low	Poor	0.32
Total	0.16			0.32

4.4. The proposals are to allow caravan camping for a small number of caravans in the survey area. No excavations will be carried out other than the excavation of a small channel to create hook-ups for the caravans. These excavations will be backfilled with the same soils back to its original state. The caravan camping spots will simply allow visitors to drive onto the surveyed area and park a caravan on the spot for a number of days. No habitat will be lost. The habitat may decrease in value, but the habitat is already in the poorest condition that can be scored therefore there will be no net loss of biodiversity as a result of the proposals.

4.5. No badger setts or badger field signs were identified within the survey area therefore there will be no impact on badgers as a result of the proposed activities.

4.6. There is one ditch that is partially wet located adjacent to the survey area but this provides no potential habitat for water voles, otters or crayfish therefore the proposals will not have any impact on these species.

4.7. There are three ponds shown on maps within 500m of the survey area. One of these, Pond 1, provides 'below average' suitability for great crested newts and is a relatively isolated pond. The remaining two ponds, Ponds 2 and 3, are located further away from the survey area with an abundance of high value terrestrial newt habitat between them and the survey area. In addition Pond 3 is a heavily stocked fishing pond. The survey area provides no terrestrial value for great crested newts and the proposed activities are of no more impact than the current use of the area. Taking all the above into account, it is assessed that the proposed activities will have no impact on great crested newts.

4.8. Amphibian surveys carried out during 2012 identified common toads in some of the ponds on the site. The survey area does not provide any suitable terrestrial habitat for common toads therefore the proposed activities will have no impact on these species.

4.9. There are no buildings or trees within the survey area therefore the proposals will have no impact on any bat roosts.

4.10. The survey area provides no value for foraging and commuting bats, although the surrounding scrub and woodland habitats provide some good potential. The proposed activities will not result in any loss or fragmentation of bat foraging or commuting habitat; however, any new external lighting will need to be sensitive to any bats foraging over the adjacent habitats.

4.11. The survey area does not provide any potential habitat for nesting birds therefore the proposed activities will have no impact on nesting birds.

4.13. It is assessed that the survey area provides negligible potential for reptiles and therefore the proposals will have no impact on reptiles.

4.14. The site lies outside the natural range of hazel dormouse and red squirrel therefore there will be no impact on these species as a result of the proposed activities.

4.15. No non-native invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) were identified within the survey area therefore the proposed activities will not cause or allow such plants to spread off the site.

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5. RECOMMENDATIONS.

5.1. If there is a requirement for any new external lighting to be installed it is recommended that a sensitive lighting scheme is implemented in the form of low powered downward directional lighting that does not illuminate the adjacent scrub and woodland habitats.

5.2. There will be no overall net loss of biodiversity on the site, however some enhancements will be made to a grass verge along the existing access route to the new caravan camping pitches by the sowing of some wildflower seeds. It is recommended that an area of at least 75m^2 (equivalent to 50m x 1.5m) is enhanced to achieve the net gain outlined below. This will enhance part of a grass verge that is currently 'modified grassland' in 'fairly poor' condition to 'neutral grassland' in 'moderate' condition and will result in an 8.75% net gain. This is demonstrated in the Defra Metric 3.0 tables below.

Baseline:

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Modified grassland	0.008	Low	Fairly Poor	0.02
Total	0.008			0.02

Enhancement:

Habitat Type	**Extent (ha)**	**Condition Change**	**Biodiversity Units**
Modified Grassland – Neutral Grassland	0.008	Fairly Poor - Moderate	0.05
Total	**0.008**		**0.05**

5.3. In addition to ensuring a no net loss of biodiversity on the site, in line with the NPPF there will be an expectation to provide some biodiversity enhancements for fauna species on the site. This is difficult to provide within the red line area of the caravan camping pitches due to the small size, but after discussions with the client it has been agreed that during the clearance of some of the die back trees across the

Mapplewell Meadows site, these will be used to create log piles in the area of scrub adjacent to the caravan camping pitches.

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Appendix I. ANNOTATED MAP OF THE SURVEY AREA.



Site: Mapplewell Meadows Caravan Park	Prepared by: Ruth Georgiou
Reference: 220178	Date: 25th January 2022

Appendix II. TARGET NOTES.

T1 – Survey Area

T2 – Area cleared down to bare ground.

T3 – Proposed hard standing existing access to site.