

Preliminary Ecological Appraisal and Roost Assessment

Survey site:

Land on Northwest side of Barnsley Road, Barnsley Road, Brierley, Barnsley, S72 9LJ

Client:

Paddy Connors

Survey date:

7th May 2024

Project:

This report is prepared to inform a retrospective planning application and enforcement notice for the removal of hard surfaces and a building, with the retention of 3no. buildings in situ for residential purposes. Retrospective impacts have been identified through the use of historical aerial images.

[Unsubmitted]

PEA survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024.](#)

PRA survey methodology and legislation can be found in the Arbtech Supplement: [PRA Methodology and Legislation - 2024.](#)

The site survey was undertaken by Charlie Moore (Accredited Agent on Natural England Protected Species Licence Number: [Bats] (2022-10404-CL18-BAT)					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
07/05/2024	12	76	80	11	None

Ecological Survey Factor	Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.
Conclusion, Impact or Recommendations	
Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, photos in appendix 3 and proposal plan in appendix 4). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).	
<i>Summary of Survey Findings</i> <i>(UKHab codes used)</i>	<p>The survey site is centred on National Grid Reference SE413118 and has an area of approximately 1.3ha. The site consists of a large grassland field, located on the north-west side of Barnsley Road, west from Brierley roundabout and north-west outside of the built-up area of the village Brierley, in the Metropolitan Borough of Barnsley.</p> <p>The site comprises other neutral grassland, artificial unvegetated unsealed surfaces, buildings, and a seasonal pond, all bounded by a palisade fence that is in good condition. Offsite trees and hedges are located immediately adjacent to the north, east and south boundary, with offsite scattered mature trees are along the west boundary. Also present on the western boundary is a recently planted non native and ornamental hedge and a section of bramble scrub. The site is bordering an agricultural field to the west and is separated from agricultural fields by a line of trees by the north boundary and by Barnsley Rd., south</p>

	<p>of the site. Moreover, the site is set ~670m south-east from the Frickley Dike river. A site location plan is provided in Appendix 2.</p> <p>A review of historic aerial imagery denotes the site as being an undeveloped greenfield site (likely comprised of other neutral grassland, as no groundworks or removal of grassland was identified onsite at time of survey) in 2019, with the hard standing areas being constructed circa 2020, and buildings (comprising of 2no. stables, a toolshed and static caravan) being present by 2023.</p> <p>The habitats present on site comprise:</p> <p><u>Other neutral grassland [g3c] that is grazed [100] and modified grassland [g4]</u></p> <p>Dominating the site, and likely persisting through previous development of the site is a large area of neutral grassland. Currently, it is being grazed by horses, and thus has a relatively short sward height approximately between 20cm and ground level. There are areas present around the extremities of site that are not as heavily grazed, which present a larger sward height of around 50cm, largely dominated with nettles. Species include meadowgrass (d), clover, creeping buttercup (f), dandelion, cow parsley, dock (o), nettle and willowherb (r).</p> <p>The section of modified grassland that appears to be established turf is comprised of meadowgrass (d), daisy (f), plantain and dandelion (o). This section appears managed, with a sward height of 6cm.</p> <p><u>Non-native ornamental hedgerows [h2b]</u></p> <p>Present on the western side of the site is a small, recently planted, hedge comprised wholly of laurel, that measures approximately 1.5m from ground level.</p>
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	<p><u>Bramble scrub [h3d]</u></p> <p>Present along the western boundary, on the northern extent is an area of unmanaged scrub that has succeeded into bramble scrub, with a height ranging between 2m and ground level.</p> <p><u>Buildings [u1b5]</u></p> <p>4no. buildings are present onsite, two metal roofed open sided stables on the north of the site, a static caravan constructed from plastic to the west, and a wooden toolshed along the southern boundary.</p> <p><u>Artificial unvegetated unsealed surface [u1c]</u></p> <p>Also present onsite are large areas of gravel hard standing, proceeding through and around the boundaries of site.</p> <p><u>Local notable habitats</u></p> <p>There are no notable habitats within the site, but multiple local notable habitats of two types are present within 2 km of the site, the closest being deciduous woodland located ~ 180m west from the site as well as a priority habitat traditional orchard located ~817m north-west.</p>
<i>Foreseen Impacts</i>	<p>Other neutral grassland and hard standing has been removed to facilitate the construction of the two stables and the construction of the static caravan. The condition of the neutral grassland onsite is recorded as poor and is not likely to have been of high value historically, due to the likelihood this field had been used for animal use. Furthermore, the size of the parcel removed to facilitate the construction</p>

	<p>of the stables is small and is not considered to have a significant impact to the site's overall value, however without mitigation and improvement will still constitute a net loss in biodiversity.</p> <p>Artificial unvegetated unsealed surfaces have been removed to facilitate the construction of the static caravan.</p> <p>As part of the proposals the hard standing previously constructed circa 2020 is also to be removed. Due to the value of this habitat parcel, there is not likely to be an adverse effect on the habitats nearby.</p>
<i>Recommendations</i>	A biodiversity net gain (BNG) report is likely to be required for the proposal, as habitats have been removed to facilitate the construction of the buildings onsite. In line with statutory guidance, the BNG report will need to use the likely pre-development habitats as a baseline to ensure that it is a true representation of the overall change in biodiversity on the site.
Locality and Designated Sites	
<i>Summary of Survey Findings</i>	<p>The site is not subject to any statutory designation and there are no statutory designated sites within 2km of the site.</p> <p>The site lies within the impact risk zone for Dearne Valley Wetlands Site of Special Scientific Interest (SSSI) and Seckar Wood SSSI, however the proposed development type is not listed as a possible risk to this designation.</p> <p>The site is located within non-statutory designation community forest White Rose Forest.</p>
<i>Foreseen Impacts</i>	None foreseen – due to the size of the development and its requirements no significant impact is likely.
<i>Recommendations</i>	None.
Invasive / Non-native species	
<i>Summary of Survey Findings</i>	No problematic invasive and non-native species recorded on site.
<i>Foreseen Impacts</i>	N/A

<i>Recommendations</i>	No further surveys but remain vigilant.
Invertebrates	
<i>Summary of Survey Findings</i>	No habitat for protected or notable invertebrates is found on site. Common species could utilise the seasonal pond flora and flowering plants within the grassland.
<i>Foreseen Impacts</i>	None foreseen – no habitats suitable for notable species of invertebrates have been removed.
<i>Recommendations</i>	<p>No further surveys.</p> <p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for invertebrates:</p> <ul style="list-style-type: none"> • The planting of native species of grasses into wildflower meadows • Pollinator friendly planting • Construction of insect boxes
Bats	
<i>Summary of Survey Findings</i>	<p>There is one European Protected Species License (EPSL) within 2km of site according to the MAGIC database, EPSM2012-4323 located ~1.7km south from the site allowing destruction of a resting place of common pipistrelle.</p> <p>There are 4no. buildings are present onsite, all of which appear to have negligible value for bats due to a lack of suitable roosting features, and construction mediums that do not support appropriate thermodynamic properties to be overly suitable for bats.</p> <p>There are no trees onsite that bats could utilise, however there are several large areas of woodland and mature trees adjacent to site that bats could utilise for foraging.</p>

	<p>The stables have metal sheet roofs, and vented wooden sides with open aspects that would make maintenance of a consistent temperature not possible, and as such are not suitable for roosting bats.</p> <p>The caravan onsite is constructed from plastic, and is in good condition, with not suitable features identified for bats.</p> <p>The wooden toolshed is also in good condition, with no identified bat roosting features.</p> <p>No evidence of bats has been identified within the interior of any buildings scheduled for removal.</p> <p>Furthermore, the deciduous woodland located directly adjacent to site is of significantly higher value to bats, so any utilising the area are more likely to be found there.</p>
<p><i>Foreseen Impacts</i></p>	<p>The buildings onsite are already constructed, and no trees are scheduled for removal, no impacts to bats are anticipated.</p> <p>The wooden toolshed is due for removal, however as bats are likely absent from this structure no adverse effects are envisaged.</p> <p>The development could include exterior lighting which could disturb or deter bats from utilising the offsite trees and woodland.</p>
<p><i>Recommendations</i></p>	<p>A low impact lighting strategy will be adopted for the site during and post-development.</p> <p>The installation of 3no. bat boxes at the site will provide additional roosting habitat for bats.</p> <p>The bat boxes will be installed on retained buildings.</p> <p>Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.</p>
<p>Birds</p>	

<i>Summary of Survey Findings</i>	No evidence of nesting birds was found on site during the surveys; furthermore, the scrub noted onsite and the offsite mature trees around the boundary could support nesting birds. No habitat for schedule 1 birds was observed.
<i>Foreseen Impacts</i>	No scrub areas or trees have been removed to facilitate the construction of the site.
<i>Recommendations</i>	2no. bird boxers should be placed in suitable locations onsite, either on retained buildings or around the boundary. An example of bird boxes to be used could be: Vivara Pro WoodStone Swift Nest Box (Buildings) House Sparrow Terrace FSC Nest Box (Buildings) General purpose bird boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight.
Reptiles	
<i>Summary of Survey Findings</i>	No local EPSLs for reptiles have been returned within 2km from the site. Limited reptile habitat is present onsite, and as such, reptiles are not likely to be using the site. The land use of grazing equines further reduces this. However, there is a section of deciduous woodland that could support reptiles to the north of site, and reptiles have been known to commute over grassland for short distances.
<i>Foreseen Impacts</i>	Although no areas of suitable habitat has been removed as part of the development, there is a low risk that a low number of reptiles could be present in the vicinity of the works. These could have been injured or killed without mitigation.
<i>Recommendations</i>	The site could be enhanced for reptiles post development with the inclusion of log piles and a compost heap.

	<p>Owing to the nature of the proposed development and the low potential for impacts to reptiles, further surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none"> • A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed to 15cm and left overnight to allow any reptiles to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter reptiles from the working area. • Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent reptiles from utilising these areas. • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • In the unlikely event that a reptile is identified, works must cease and advice must be sought from a suitably qualified ecologist.
<p>Amphibians</p>	
<p><i>Summary of Survey Findings</i></p>	<p>No local EPSLs for great crested newts have been returned within 2km from the site.</p> <p>Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton et al. 2001). A review of aerial imagery indicates the presence of a single pond located approximately 210m north west of site, located in the centre of a grassland field</p>

	<p>adjacent to an access road, that does not have raised kerbs. The intervening connective habitat of this site is comprised of an access road, agricultural grassland and woodland.</p> <p>A small, seasonal drainage ditch/soakaway is present on the northern corner of site, that is not likely to support the complex lifecycle of great crested newts due to its seasonality and lack of suitable partially submerged foliage. Furthermore, the ditch is also located within a field that is currently used for grazing horses, and so is not likely to have suitable sward lengths for commuting to and from the ditch, making it isolated.</p>
<i>Foreseen Impacts</i>	There has been no removal of habitats that could be utilised by amphibians, however, creatures themselves may have been harmed during construction.
<i>Recommendations</i>	No further surveys are required – precautionary working methods for reptiles will assist amphibians. •In the unlikely event that a great crested newt is identified, works must cease and advice must be sought from a suitably qualified ecologist.
Badger	
<i>Summary of Survey Findings</i>	No evidence of badgers was found on site or suspected within 30m of the survey boundary. The palisade fence is likely to be a significant barrier to badgers in the area, and so they are not likely to be able to access the site.
<i>Foreseen Impacts</i>	None – as badgers are likely to be absent from site.
<i>Recommendations</i>	None.
Riparian animals	
<i>Summary of Survey Findings</i>	There are no watercourses on or suitably connected to the site, and the site currently offers no suitable habitat for riparian mammals. Off-site ditches are found to the north, however, are not suitably connected to a wider network of established watercourses and as such are not likely to support riparian mammals.

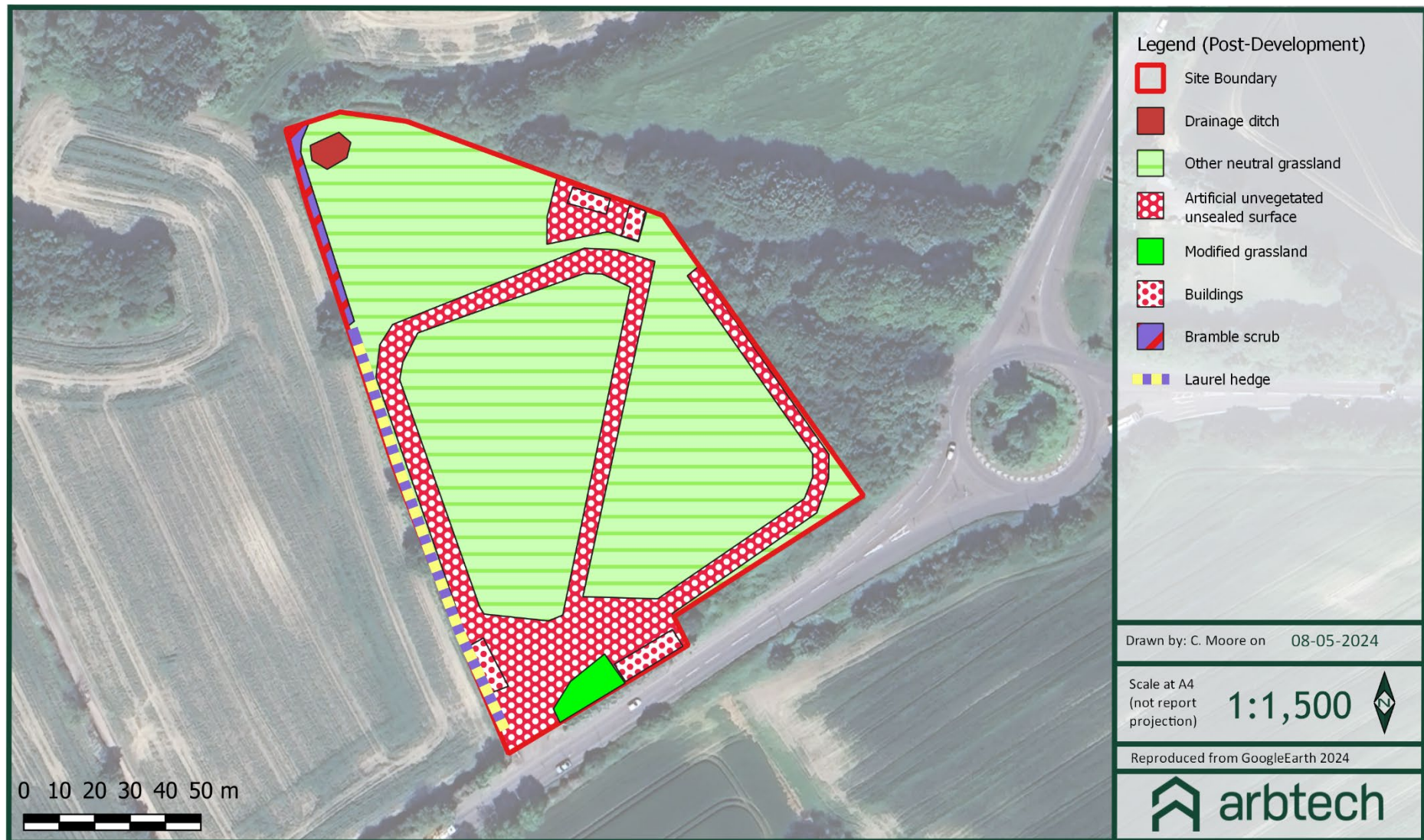
	Furthermore, the palisade fence surrounding the site is not likely to allow entrance to the site for larger riparian mammals including otters.
<i>Foreseen Impacts</i>	No impacts are likely on riparian animals as a result of the development.
<i>Recommendations</i>	N/A
Hazel dormouse	
<i>Summary of Survey Findings</i>	<p>Although connected to a deciduous woodland to the north, there is no suitable dormouse habitat on the site itself and the local habitats are heavily fragmented and not connected to core habitats for the species.</p> <p>The site is also located outside of the known range of natural or introduced dormice populations.</p> <p>There are no dormouse European Protected Species License (EPSL) within 4km according to the MAGIC database.</p>
<i>Foreseen Impacts</i>	No impacts are likely to have occurred on hazel dormice as a result of the development.
<i>Recommendations</i>	None.
Other e.g. hedgehog	
<i>Summary of Survey Findings</i>	The palisade fence around the site is likely to have inhibited smaller mammals such as hedgehogs from accessing the site, furthermore the site has limited habitat suitable for hedgehogs.
<i>Foreseen Impacts</i>	None.
<i>Recommendations</i>	None.

Appendix 1: Survey/Habitat map pre development



Figure 1 generated from historical aerial images of the site

Appendix 2: Survey/Habitat map as existing



Appendix 3: Location map



Appendix 4: Proposed plan



Appendix 5: Photos



1. Example of artificial unvegetated unsealed surface comprising the driveway



2. Modified grassland with an offsite hedge



3. Hard standing with the laurel hedgerow and an offsite oak tree



4. An example of the constructed stables on newly constructed hard standing



5. Newly installed static caravan on hard standing



6. Toolshed present on hard standing with modified grassland located adjacent



7. An example of the other neutral grassland currently being utilised for grazing equine



8. Palisade fence in situ around the boundary of site



9. Looking to the north with an offsite woodland, palisade fence, other neutral grassland and hard standing with the stables left of frame



10. Seasonal drainage ditch present on the northern extent of the site



11. Bramble scrub on the northern extent of the site

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