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Preliminary Ecological Appraisal

Survey site:

Land at Netherley Drive, Marsden, Huddersfield, West Yorkshire, HD7 6HL

Client:

Ross Thornton

Survey date:

03/06/2026

Project:

This report is prepared to inform a planning application with Kirklees Council. "The erection of 10 (no.) dwellings within the site."

On the assumption that site conditions and habitats remain unchanged, the results of this assessment will remain valid for 18 months from the date of this survey i.e. until December 2027, in accordance with CIEEM guidance in the lifespan of Ecological Reports and Surveys. This survey and report should be updated if a planning application has not been submitted within this timeframe.

EXECUTIVE SUMMARY

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in the proceeding sections of this report.

Table 1: Summary of key findings arising from this survey.

Key Findings
• The proposed works will result in a net loss of biodiversity on site. As the site does not meet one of the exemptions, a Biodiversity Net Gain (BNG) assessment will be required to ensure the site delivers the net gain required by the local council. • A Construction Environmental Management Plan (CEMP) may be requested by the LPA via condition. • A low impact lighting strategy will be adopted for the site during and post-development, which will be designed to incorporate the measures laid out in the latest (2023) bat lighting guide Guidance Note 8 Bats and Artificial Lighting[1]. • Environmental DNA (eDNA) surveys will be required on the ponds within a 250m radius of the site (i.e., P1) to determine the presence or absence of great crested newts (GCNs). This is because the site currently generates an amber risk score. Alternatively, a GCN mitigation plan could be produced for the site to mitigate impacts. This would be at the discretion of the local planning authority. • Various precautionary working methods have been recommended which have been fully detailed within the fauna section of this report.

1. INTRODUCTION

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development.

Methodology

PEA survey methodology and legislation can be found in the Arbtech Supplement: PEA Methodology and Legislation - 2025.

Survey Details

The site survey was undertaken on 03/06/2026 by Jessica Sibley BSc (Hons) MSc, Consultant Ecologist and accredited agent on a Natural England class 2 bat licence to undertake level 1 activities (details can be provided upon request).

Table 2: The weather conditions during the survey.

Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
11.9	92.0	100	17.9	Moderate rain

Survey Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of

the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

2. SITE LOCATION AND LANDSCAPE CONTEXT

2.1 Summary of Survey Findings

Site Location & Context

The site is centred at National Grid reference SE 04514 10890 and has an area of approximately 0.856ha comprising bare ground, hardstanding, other neutral grassland, a treeline, non-native ornamental hedgerow, small scattered trees and built linear features, in Huddersfield.

The site is well connected to nearby pasture, grassland, woodland, treelines, scattered trees, as well as watercourses and Butterley Reservoir.

Priority Habitats

There are 10 priority habitats within 2km of the site. These comprise deciduous woodland, lowland heathland, blanket bog, upland heathland, upland flushes fens and swamps, ancient & semi-natural woodland, ancient replanted woodland, open mosaic habitats on previously developed land, lowland dry acid grassland and infilled ancient wood pasture. The closest priority habitat comprises deciduous woodland, located 60m E from the site.

Designated Sites

Statutory Designations within 2km

There are six statutory designations within 2km of the site, as detailed below:

Table 3: The statutory designated sites within 2km of the site boundary.

Designation	Distance from Site
South Pennine Moors Site of Special Scientific Interest (SSSI)	240m N
Dark Peak Site of Special Scientific Interest (SSSI)	470m SE
Peak District National Park	270m S
South Pennine Moors Special Area of Conservation (SAC)	240m W
South Pennine Moors Phase 2 Special Protection Area (SPA)	240m W
Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA)	470m S

Statutory Designations within 10km

No additional national network sites (SAC, SPA, Ramsar) are located within 10km.

SSSI Risk Zone

The site falls within the impact risk zone for South Pennine Moors SSSI. The proposed works include the erection of 10 (no.) dwellings which is listed as high risk with all consultations requiring consultation with Natural England.

Non-Designated Sites

The presence of non-statutory designated sites within 2km of the site cannot be established without data from the local records centre. Whilst some habitats in the wider landscape may host designations, the immediate environs of the site do not host habitats likely to be of designable quality.

2.2 Foreseen Impacts

No direct impacts to any designated sites will occur as a result of the proposed development. However, due to the proximity of the site to local designated sites, and the possible presence of non-statutory designations in the vicinity, indirect effects such as pollution during construction, or increased recreational pressure, could occur.

2.3 Recommendations

Best practice measures to minimise the possibility of pollution, damage to adjacent habitats must be implemented during construction. A Construction Environmental Management Plan (CEMP) may be requested by the LPA via condition. This should include the following measures:

- Retained trees adjacent to the site will be protected in line with the measures outlined in the British Standard 'Trees in Relation to Design, Demolition and Construction to Construction - Recommendations' (BS 5837) (2012).
- Appropriate buffering between the development zone and retained habitats (e.g. 15m for ancient woodland)
- Use of Heras or other appropriate fencing to prevent encroachment by contractors onto adjacent habitats.

A Construction Ecological Management Plan (CEMP) will be required, outlining best practice measures to delineate the construction zone and to minimise the possibility of pollution and damage to nearby habitats during construction.

3. ONSITE HABITATS

This section 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.

3.1 Summary of Survey Findings

Artificial unvegetated, unsealed surface (u1c)

Areas of unsealed surface are present in the form of a small bare ground parking area south of the site.

In accordance with the Statutory Biodiversity Metric, this habitat is not subject to a condition assessment.

Developed land; sealed surface (u1b)

Sections of hard-standing surface are present in the form of an access drive southwest of the site, and an area of hardstanding with small buildings southeast.

In accordance with the Statutory Biodiversity Metric, this habitat is not subject to a condition assessment.

Other neutral grassland (g3c)

The majority of the site is covered with grassland comprised of a variety of common grassland species. The grass has a varied sward length and no signs of compaction or damage are present, resulting in areas of bare ground totalling <10% of the site. The species composition is moderate with more than 8 species per square meter.

Table 4a: Species abundance for other neutral grassland.

Abundance	Species
Dominant	Yorkshire-fog *(Holcus lanatus)*
Abundant	-
Frequent	Red Fescue *(Festuca rubra)*, Common Nettle *(Urtica dioica)*, Bracken *(Pteridium aquilinum)*, Creeping Buttercup *(Ranunculus repens)*

Occasional	Meadow Foxtail *(Alopecurus pratensis)*, Sweet Vernal-grass *(Anthoxanthum odoratum)*, Cock's-foot *(Dactylis glomerata)*, Soft rush *(Juncus effusus)*, Oval Sedge *(Carex leporina)*, Creeping Thistle *(Cirsium arvense)*, Meadow Buttercup *(Ranunculus acris)*, Broad-leaved Dock *(Rumex obtusifolius)*, Cuckooflower *(Cardamine pratensis)*
Rare	Bush Vetch *(Vicia sepium)*, Cleavers *(Galium aparine)*, Springy turf moss *(Rhytidiadelphus squarrosus)*, Polytrichum commune *(Polytrichum commune)*, Foxglove *(Digitalis purpurea)*, Common Sorrel *(Rumex acetosa)*

In accordance with the Statutory Biodiversity Metric Condition Assessment Matrix, the other neutral grassland was assessed to have a moderate condition value.

Built linear features (u1e) - Dry stone wall (114), Mortared wall (853), Fence (612)

The boundaries of the site include ~2m tall wood panel fencing, ~1m tall dry stone wall, and ~2m tall mortared wall.

In accordance with the Statutory Biodiversity Metric, this habitat is not subject to a condition assessment.

Broadleaved mixed and yew woodland (w1) - Line of trees (33)

The site is enclosed by a semi-mature line of trees along sections of the east site boundary. The line of trees is approximately ~58m in length and has open habitat on both sides in the form of gardens, and the on-site grassland.

Table 4b: Species abundance for line of trees.

Abundance	Species
Dominant	-
Abundant	-
Frequent	-

Occasional	Rowan *(Sorbus aucuparia)*, Sycamore *(Acer pseudoplatanus)*, Hawthorn *(Crataegus monogyna)*, Leyland Cypress *(Cupressus x leylandii)*, Holly *(Ilex aquifolium)*
Rare	-

In accordance with the Statutory Biodiversity Metric Condition Assessment Matrix, the line of trees was assessed to have a moderate condition value.

Non-native and ornamental hedgerow (h2b)

The site is enclosed by non-native and ornamental hedgerow along sections of the southern and western site boundaries. The hedgerow is actively maintained at ~2.5m(h) and ~1.5m(w). The hedgerow appears densely vegetated at canopy level, though the understorey is relatively open and sparsely vegetated.

Table 4c: Species abundance for non-native and ornamental hedgerow.

Abundance	Species
Dominant	Hornbeam *(Carpinus betulus)*
Abundant	-
Frequent	Leyland Cypress *(Cupressus x leylandii)*
Occasional	-
Rare	-

In accordance with the Statutory Biodiversity Metric Condition Assessment Matrix, the non-native and ornamental hedgerow was assessed to have a poor condition value.

Scattered Trees (32)

Two scattered trees were noted across the site, both of which are native species. A young or semi-mature goat willow *(Salix caprea)* stands alongside a similarly aged and small crab apple *(Malus sylvestris)*.

In accordance with the Statutory Biodiversity Metric Condition Assessment Matrix, the trees were assessed as follows:

Table 5: The condition assessment scores for the scattered trees on site.

Tree / Group	Common Name	Condition Score
T1	Goat Willow (small)	Moderate
T2	Crab Apple (small)	Moderate

Building (u1b5)

There are two buildings on site; one is an electricity sub station and one is an outbuilding.

3.2 Foreseen Impacts

The proposed development will result in the loss of ~0.826 of other neutral grassland. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats. However, this could lead to a net loss in biodiversity at the site.

3.3 Recommendations

Best practice measures to minimise the possibility of pollution must be implemented during construction. This should include the following measures:

- Remove only the minimum of habitat required to facilitate the development
- Use of Heras or other appropriate fencing to prevent encroachment by contractors onto retained habitats.
- Protect retained turf and soil resource from destruction and compaction using plastic matting and wooden boarding. Do not store skips and other heavy

materials on retained turf.

• Grasscrete, cell web or any other porous surface treatment facilitating recovery of vegetation is preferred to hard standing.

A Construction Ecological Management Plan (CEMP) will be required, outlining best practice measures delineate the construction zone and to minimise the possibility of pollution and habitat damage during construction.

The proposed development may require a Biodiversity Net Gain assessment, to calculate the value of habitats on site and ensure the delivery of a minimum of 10% measurable biodiversity net gain.

4. INVASIVE SPECIES

This section 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.

4.1 Summary of Survey Findings

No non-native invasive or otherwise problematic plants were recorded on site or are considered likely to be on site, but given seasonal limitations and the sites wider context, may be visible at other times of year.

4.2 Foreseen Impacts

None.

4.3 Recommendations

No further surveys but remain vigilant.

5. FAUNA: BATS

This section 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.

5.1 Summary of Survey Findings

EPSL data and local records

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. There are 3 EPSLs within a 2km radius of the site, as detailed below:

Table 6: EPSL survey returns for bats within a 2km radius.

EPSL Reference	Bat Species Affected	Distance from Site *(EPSL records are accurate to 100m)*	Impacts Allowed by Licence
2015-12005-EPS-MIT	Common pipistrelle	~1100m NW	Destruction of a resting place
2015-12005-EPS-MIT-1	Common pipistrelle	~1100m NW	Destruction of a resting place

2018-38561-EPS-MIT	Common and soprano pipistrelle	~2000m NE	Destruction of a resting place

There are no Special Areas of Conservation designated for bats within 10km of the site.

Foraging and commuting habitat

Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of other neutral grassland, line of trees, non-native and ornamental hedgerow and scattered trees, and offsite within 2km including deciduous woodland, lowland heathland, blanket bog, upland heathland, upland flushes fens and swamps, ancient & semi-natural woodland, ancient replanted woodland, lowland dry acid grassland and infilled ancient wood pasture. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations.

Roosting habitat

Buildings and trees to be impacted by the proposed development were assessed for their suitability to support roosting bats below. There are a total of two buildings on site; electricity sub station (B1) and outbuilding (B2). All buildings were surveyed as they will be impacted by the proposed development. Habitat values for roosting bats have not yet been assigned.

Buildings

B1: Other

Building B1 is a detached, brick-built electricity substation.

Building B1

B2: Outbuilding

Building B2 is a detached, metal-framed outbuilding.

Building B2

5.2 Foreseen Impacts

Roosting habitat [Buildings]

Bats are very unlikely to be roosting within B1 and B2 and as such, there are not anticipated to be any impacts on bats in these locations as a result of the proposed development.

Roosting habitat [Trees]

None of the trees present on site included suitable roosting features for bats to utilise. Therefore, no impacts to roosting bats are anticipated.

Foraging and commuting habitat

The proposed development will result in the loss of ~0.826ha of other neutral grassland and two small scattered trees but given the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats.

Artificial lighting

The proposed development may lead to an increase in the amount of current lighting of surrounding habitats and without mitigation this may disturb commuting bats.

5.3 Recommendations

Roosting habitat [Buildings]

In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.

Roosting habitat [Trees]

In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.

Foraging and commuting habitat

No further surveys are required.

Artificial lighting

A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released

Suggested biodiversity enhancements

The installation of a bat box per new dwelling at the site will provide additional roosting habitat for bats.

The bat boxes will be incorporated into the fabric of the new dwellings. Suitable bat boxes include the Habibat Bat Box, Ibstock Enclosed Bat Box or similar alternative brand.

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.

6. FAUNA: BIRDS

This section 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.

6.1 Summary of Survey Findings

Buildings

No evidence of nesting birds was identified on or within B1 and B2. B1 and B2 are deemed to provide negligible habitat value for nesting birds due to a lack of suitable nesting sites or access points.

Trees and vegetation

No bird nests were identified within the vegetation on-site, however scattered trees offers nesting opportunities and nest-building resources for birds, other neutral grassland offers foraging opportunities, and line of trees and non-native and ornamental hedgerow offer both nesting and foraging opportunities.

Due to the small size of the site and the extent and type of the habitats recorded, the site is not considered suitable to support a significant assemblage of protected and/or notable birds.

Barn Owls

The site does not appear to provide any suitable nesting sites for barn owls.

6.2 Foreseen Impacts

Buildings / trees

The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.

Trees and vegetation

None foreseen.

Barn Owls

None foreseen.

6.3 Recommendations

Buildings / trees

Any vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged or an ecologist has confirmed the nesting attempt has concluded.

Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged or an ecologist has confirmed the nesting attempt has concluded.

Precautions should be taken with machinery and noise levels when working close to any retained habitats so as not to disturb any nearby nesting birds during construction works.

Breeding birds

No additional surveys required.

Barn Owls

No further barn owl surveys required.

Suggested biodiversity enhancements

The installation of a minimum of one bird box per new dwelling will provide additional nesting habitat for birds e.g. swallow nest bowl, Woodstone Nest Box or a similar alternative brand.

Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.

7. FAUNA: REPTILES

This section 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.

7.1 Summary of Survey Findings

EPSL data and local records

A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site.

Habitat suitability

Habitats recorded on site are assessed to provide foraging, commuting, basking and refuge opportunities for reptiles. The hedgerow and bracken/rush swards within the grassland provide elevated value for reptiles as these habitats provide a suitable structure for refuge, whilst also providing foraging and commuting opportunities. The dry stone walls also have refuge and hibernation opportunities. The site has good connectivity to further suitable reptile habitat in the wider landscape via woodland and grassland, and linear features. The presence of reptiles on site cannot be discounted.

Wider landscape

The adjacent grassland and nearby woodland are of elevated ecological value within the wider landscape and may represent important resources for local reptile populations. These adjacent habitats provide optimal foraging, commuting, and refuge opportunities for reptiles and are well connected to further suitable habitat in the wider landscape. The presence of reptiles utilising these nearby habitats cannot be discounted.

7.2 Foreseen Impacts

Approximately ~0.826ha of other neutral grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local reptile populations owing to the presence of more extensive habitat locally. However, site clearance could result in the death or injury of reptiles, if present.

7.3 Recommendations

A precautionary working method will be implemented for widespread reptiles during construction, including the following measures:

- Grassland will be subject to a two-stage cut (if sward is >10cm) prior to removal in a directional manner, the first cut at 10cm and the second to ground level and maintained as a short sward (5cm) or bare ground throughout construction.
- Removal of any root systems / refugia will be undertaken outside the reptile hibernation season (November – February).
- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.
- If any reptiles are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.
- In the unlikely event that a reptile is identified, works must cease and advice must be sought from a suitably qualified ecologist.

Suggested biodiversity enhancements

The site could be enhanced for reptiles post-development with the inclusion of log piles (created from felled materials) and planting of areas of native shrubs, to provide sheltering opportunities.

8. FAUNA: AMPHIBIANS

This section 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.

8.1 Summary of Survey Findings

EPSL and survey data

A review of the MAGIC database returned no granted EPSL records for amphibians within 2km of the site. Further, no positive class survey licence return or District Level Licencing (DLL) historic survey data (2017 – 2019) for great crested newts (GCN) were present within 2km of the site.

A review of MAGIC database found no granted EPSL for great crested newts (GCN) within 2km of the site.

The site is located in an area where no DLL scheme for GCN is available.

Aquatic habitat suitability (including ponds within 500m)

Great crested newts (GCN) 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).

There are no ponds on the site, but a review of aerial imagery (MAGIC and OS Maps) indicates the presence of four ponds within 500m. The closest pond is located ~130m SW.

A pond map showing approximate pond locations is provided in Appendix 6.

Terrestrial habitat suitability

The site provides good opportunities for terrestrial amphibians in the form of varied sward grassland for foraging and commuting, and dry stone wall form hibernation and refuge. The presence of terrestrial amphibians within the site cannot be discounted.

8.2 Foreseen Impacts

When georeferencing the proposed development plans over scaled mapping of the site, it is noted that the development area is likely to result in the loss or significant disturbance of ~0.826ha of other neutral grassland. If great crested newts are present within the pond ~130m SW, when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces an amber risk score, which states: Offence likely. Without appropriate mitigation the proposed development would likely result in impacts to great crested newts.

8.3 Recommendations

Environmental DNA (eDNA) surveys will be required of any ponds within 250m of the site (where accessible) to determine the presence or absence of great crested newts. This will comprise collecting water samples and sending them off for laboratory analysis and such surveys must be undertaken between mid-April and June, in accordance with current survey guidelines (Biggs et al, 2014).

Alternatively, a GCN mitigation plan could be produced for the site given the pond is an ornamental garden pond and thus less likely to support great crested newts. Acceptance of this approach would be at the discretion of the local planning authority.

The surveys are likely to be required before planning permission can be granted.

Suggested biodiversity enhancements

The site could be enhanced for amphibians post-development through creation of amphibian hibernacula using rubble and logs from site clearance. Information on how to construct a hibernaculum can be found here: https://www.wiltshirewildlife.org/hibernaculum

9. FAUNA: RIPARIAN ANIMALS

This section 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.

9.1 Summary of Survey Findings

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed for riparian animals (otters and water voles). No EPSLs relating to riparian animals are present within a 2km radius of the site.

Habitat suitability

There are no watercourses on or connected to the site. There are also no riparian habitats present on site or within an influencing distance.

9.2 Foreseen Impacts

No impacts are anticipated on riparian animals as a result of the proposed development.

9.3 Recommendations

No further surveys for riparian animals required.

10. FAUNA: HAZEL DORMOUSE

This section 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.

10.1 Summary of Survey Findings

EPSL data and local records

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed for hazel dormouse. No EPSLs relating to hazel dormouse are present within a 2km radius of the site.

Habitat suitability

The site lies outside of the known current range for hazel dormice and there are no suitable habitats within the development area. As such it is considered likely that hazel dormice are absent from site.

10.2 Foreseen Impacts

No impacts are anticipated on hazel dormice as a result of the proposed development.

10.3 Recommendations

No further hazel dormouse surveys required.

11. FAUNA: BADGERS

This section 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.

11.1 Summary of Survey Findings

No badger setts were noted on site or within a 30m radius of the site. Furthermore, no evidence of foraging badgers was noted within the development area. However, the site was considered suitable for badger sett excavation and foraging habitat.

11.2 Foreseen Impacts

No works will be undertaken within 30m of a badger sett. Approximately ~0.826ha of other neutral grassland] will be removed during construction. The loss of such habitats is likely to be inconsequential to local badger populations owing to the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present.

11.3 Recommendations

Owing to the nature of the proposed development and the low potential for impacts to badgers, further badger surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:

- A toolbox talk will be given to contractors regarding the possible presence of badgers at the site.
- A pre-commencement inspection of the site will be undertaken for any new badger activity if works do not commence within three months.
- Heras fencing will be erected around the working area to prevent encroachment into retained habitats where badger setts could be present.
- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which badgers could use.
- 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 badger sett is identified, works must cease and advice must be sought from a suitably qualified ecologist.

Suggested biodiversity enhancements

Planting fruit bearing trees, damson, and species-rich grassland to increase foraging opportunities for badgers.

12. FAUNA: INVERTEBRATES

This section 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.

12.1 Summary of Survey Findings

The habitats present on-site, including other neutral grassland, the treeline, scattered trees, and ornamental hedgerow likely provide common invertebrates with opportunities to forage and shelter. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.

12.2 Foreseen Impacts

Approximately ~0.826ha of other neutral grassland and two small scattered trees will be removed during construction. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to the presence of more extensive habitat locally.

12.3 Recommendations

No further surveys.

Suggested biodiversity enhancements

The incorporation of bee bricks (e.g. Ibstock BeeHabitat or similar alternative brand) into the fabric of the new buildings would provide sheltering opportunities for pollinators. These should be installed 0.5m above ground level on a south-facing elevation with no obscuring vegetation. The site could be further enhanced via the provision of native wildflowers or wildflower turf, which would provide foraging opportunities for invertebrates.

13. FAUNA: OTHER NOTABLE SPECIES

This section 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.

13.1 Summary of Survey Findings

Hedgehogs

The grassland provides foraging and commuting opportunities for hedgehogs, with woodland habitat nearby.

13.2 Foreseen Impacts

Hedgehogs

Approximately ~0.826ha of other neutral grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.

13.3 Recommendations

Hedgehogs

Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:

- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.

If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.

13.4 Suggested Biodiversity Enhancements

Hedgehogs

The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs:

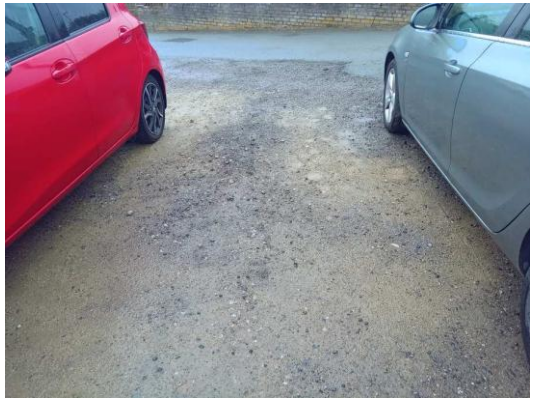
- Planting fruit bearing trees and species-rich grassland to increase foraging opportunities.
- Creation of brash piles or installation of hedgehog houses in shady areas.
- Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.

APPENDIX 1: SURVEY/HABITAT MAP

APPENDIX 2: LOCATION MAP

APPENDIX 3: PROPOSED PLAN

APPENDIX 4: HABITAT IMAGES



Artificial unvegetated, unsealed surface

Developed land; sealed surface

Other neutral grassland

Other neutral grassland

Built linear features

Built linear features

Line of trees

Non-native and ornamental hedgerow

Scattered trees; T1

Scattered trees; T2

APPENDIX 5: BASELINE CONDITION SCORE TABLES

Other neutral grassland (g3c) condition assessment.

	Criteria Description	Criteria Passed?
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote suboptimal species which may be listed in the UKHab description). Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	**Y**
B	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.	**Y**
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens. For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.	**Y**
D	Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus fruticosus agg.) is less than 5%.	**N**
E	Combined cover of species indicative of suboptimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA5) are present, this criterion is automatically failed.	**Y**
F	There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (Schedule 9 species cannot contribute towards this count).	**N**
		Total 4/6
	Condition **moderate** due to passing 4 of 6 criteria. Essential criteria (F) for good condition not met.	

Broadleaved mixed and yew woodland (w1) - Line of trees (33) condition assessment.

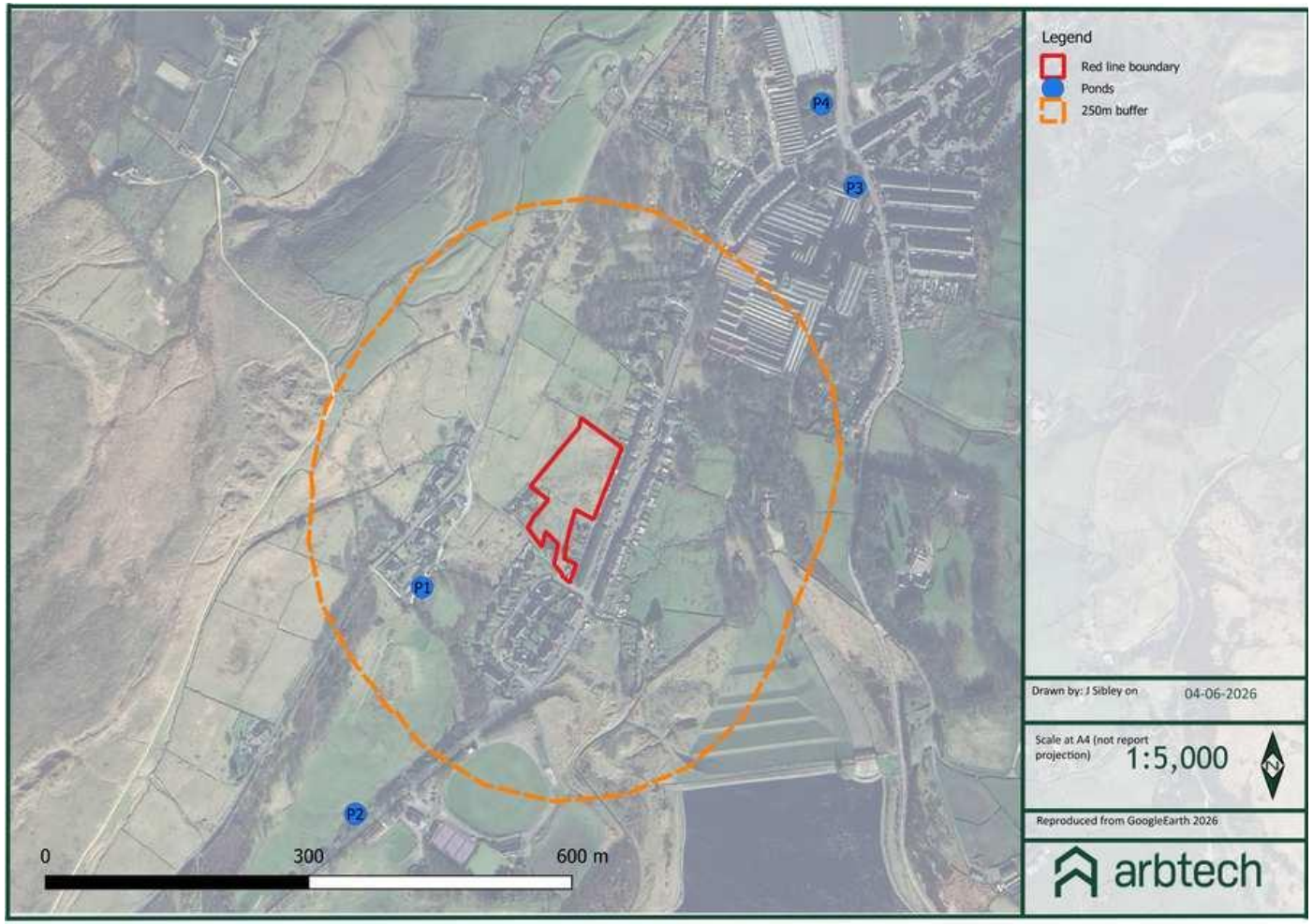
	Criteria Description	Criteria Passed?
A	At least 70% of trees are native species.	**N**
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	**Y**
C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	**N**
D	There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice.	**Y**
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	**Y**
		Total 3/5
	Condition **moderate** due to passing 3 of 5 criteria.	

Scattered trees (T1, T2) condition assessment.

	Criteria Description	Criteria Passed?
A	The tree is a native species (or at least 70% within the block are native species).	**Y**
B	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).	**Y**
C	The tree is mature (or more than 50% within the block are mature).	**N**
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	**Y**
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	**N**
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	**Y**
		Total 4/6
	Condition **moderate** due to passing 4 of 6 criteria.	

APPENDIX 6: PONDS

Pond Map



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