



**DUNFORD ROAD, HADE EDGE,
KIRKLEES – SOUTHERN AREA; LAND
WITHIN AND BEHIND 365 DUNFORD
ROAD.**

PRELIMINARY ECOLOGICAL APPRAISAL.

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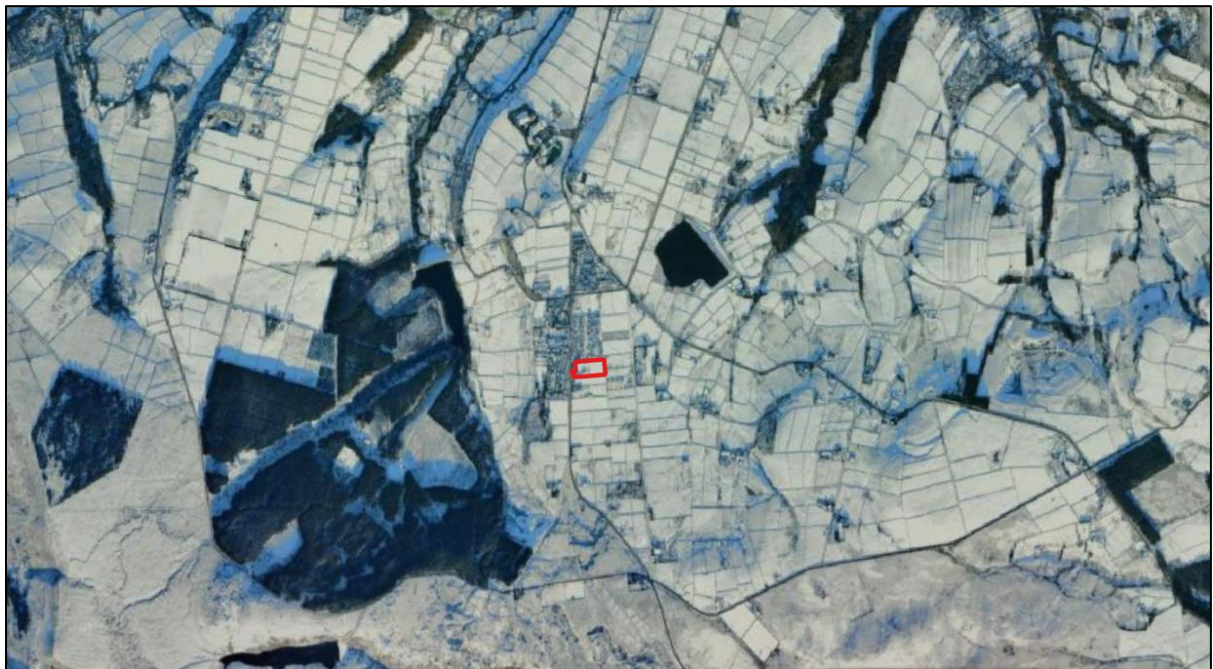
INTRODUCTION.

1.1. Works Description.

Planning permission is being sought to build residential housing and associated vegetated gardens and hardstanding on an area of land within and behind 365 Dunford Road, Hade Edge, Kirklees.

1.2. Survey Area.

The survey area is located in a rural location, surrounded by agricultural fields used mostly as grazing pasture and residential housing. The wider surrounding area comprises a mosaic of similar habitats, as well as heathland, woodland, grass moorland and reservoirs. The aerial map below shows the location of the survey area, outlined in red, and the surrounding area:



The survey area comprises fields used for grazing pasture, with boundaries comprised mainly of dry-stone wall, as well as farm buildings. The limits of the survey area are outlined in red in the aerial map below:

This report has been updated in June 2026 to include for finalised biodiversity net gain calculations.

[Appendix I](#) of this report contains an annotated map marked up with the varying habitats within the site.

[Appendices II](#) to IV of this report provide additional information on specific species and are designed to assist the reader in understanding the contents of this report.

This report will be accompanied by Microsoft Excel© files of the statutory metric and condition assessment sheets for the BNG assessment.

1.6. Surveyor Credentials.

The survey was carried out by Dr Steven Paul Sylvester PhD MSc BSc. Steven has over 19 years of experience in ecological surveys in Britain and abroad, both in capacity as a university lecturer training PhD, MSc and BSc students, as well as working within ecological consultancies performing Biodiversity Net Gain, UKHab, NVC, Phase 1 surveys etc. Steven is a specialist in botany and has produced 24 scientific publications focused on plant taxonomy and has described 34 new taxa to science, including 2 genera, 25 species, 3 subspecies, and 4 varieties. He is expert in grass taxonomy, with 14 peer-reviewed taxonomic treatments on grasses being produced. Steven holds a first-class BSc (Hons) degree in Ecology from University of Wales Bangor, an MSc with distinction in Biodiversity and Taxonomy of Plants from the University of Edinburgh, and a PhD in Ecology and Plant Taxonomy from the University of Zurich. Steven has produced a total of 37 scientific publications in peer-reviewed journals, including 18 papers as first author and 11 papers as second author. Steven is currently applying to be a full member of CIEEM.

2.SURVEY METHODOLOGY.

2.1. Survey Standards.

This report was prepared in line with the:

- a) Chartered Institute of Ecological and Environmental Management's (CIEEM) survey standards and advice, particularly their Guidelines for Preliminary Ecological Appraisals (2017).
- b) 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.
- c) 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.

2.2. Desk Study.

A data search request has been submitted to the West Yorkshire Ecology Service (WYES) to identify any records of protected species or locations of non-statutory designated sites within a 2 km radius of the survey area.

A search was also undertaken using the Department for Environment, Food & Rural Affairs (DEFRA) MAGIC Map website (<https://magic.defra.gov.uk/>) to identify locations of any statutory designated sites within a 2 km radius of the survey area or within a Zone of Influence (ZOI) for the works. Data searches were also done for publicly available online records.

2.3. Field Survey.

2.3.1. General Information.

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.

The survey area was walked with access agreed by the landowner or using public rights of way where no access was agreed.

2.3.2. Habitats and Flora.

All primary habitats within the survey area were documented and the characteristic plant species within each habitat listed in line with the UK Habitat Classification version 2.0 methodology. All primary habitats are accompanied by secondary codes which are used to add further specific details where necessary. Each primary habitat and unique set of secondary codes is shown individually in the annotated map of [Appendix I](#). Secondary code '32 *Scattered trees*' and '33 *Line of trees*' were replaced by icons or lines indicated in the legend of this map. The minimum mappable area habitat unit for the survey area is 25 m² and the minimum mappable linear habitat unit is 5 m. Any habitats smaller than this will not be included as standalone habitats but may be referenced within this report.

Plant species relative abundances within each habitat will be estimated using the DAFOR system:

Species percentage	abundance	DAFOR term	Abbreviation
51-100%		Dominant	D
31-50%		Abundant	A
16-30%		Frequent	F
6-15%		Occasional	O
1-5%		Rare	R

2.3.3. Statutory Biodiversity Metric Condition Assessments and Calculations.

A condition assessment was carried out for each habitat parcel on the site. The results of these assessments can be found within the Statutory Metric and Condition Assessment sheets which are available alongside this document.

The Statutory Biodiversity Metric baseline biodiversity value for the site was calculated for each habitat based on the habitats area, distinctiveness, condition assessment, and strategic significance. Strategic significance is based on the [Kirklees Biodiversity Action Plan \(BAP\)](#), because the Local Nature Recovery Strategy for the region has not yet been published. The Kirklees BAP specifies the following priority habitats which are found on the site: Scrubland. Thus, h3b6 hazel scrub will be considered of high strategic significance in the Statutory Biodiversity Metric calculations and given a strategic significance multiplier value of 1.15, i.e. 'Formally identified in local strategy'. All other habitats encountered on site were not in the Kirklees BAP and will be considered of low strategic significance in the Statutory Biodiversity Metric calculations and given a strategic significance multiplier value of 1, i.e. 'Area/compensation not in local strategy/ no local strategy'.

2.3.4. Fauna.

Badger.

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.

Water vole.

The survey area and nearby surroundings were searched for watercourses and where found, and when safe to do so, they 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.

Otter.

The survey area and nearby surroundings were searched for watercourses and where found, and when safe to do so, they 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.

White-clawed crayfish.

The survey area was searched for watercourses and waterbodies. Where found, they were assessed for their potential to support white-clawed crayfish in line with *Conserving Natural 2000 Rivers Monitoring Series No 1, Protocol for Monitoring the White Clawed Crayfish*.

Bat.

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.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)* by looking for the following signs: -

- * Presence of bats.
- * Holes, cracks or crevices.
- * Bat droppings or staining.

Where possible, the habitats immediately surrounding the survey area were also assessed for their potential to support roosting bats or for their suitability for foraging and commuting bats.

Great crested newt.

The area within a 500 m radius of the survey area was cross referenced to Ordnance Survey (OS) maps to highlight all ponds within this radius. Where possible and deemed necessary, 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.

Reptile.

The survey area was assessed for the potential to support all reptile species. Where appropriate, the area was also searched for the presence of reptiles by searching beneath or on any suitable refugia.

Hazel dormouse.

Where the survey area lies within the known natural home range of hazel dormouse (*Muscardinus avellanarius*), the habitat within and surrounding the survey area was searched for suitable habitat, typically comprising scrub and woodland which include species such as hazel, oak, honeysuckle, bramble and other species which may provide potential habitat for hazel dormice. When possible, 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*.

Red squirrel.

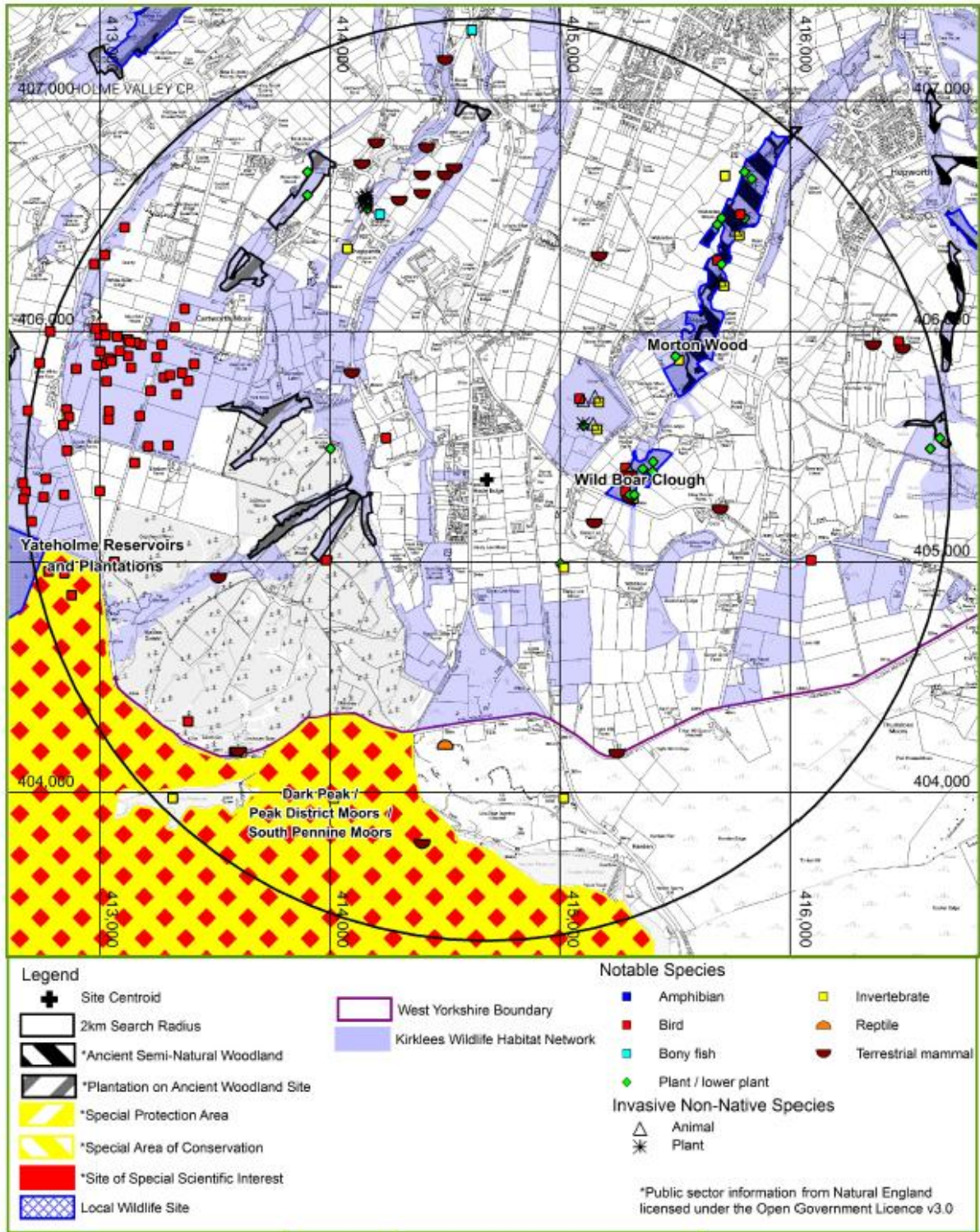
Where the survey area lies within the known natural home range of red squirrel (*Sciurus vulgaris*), the area within and surrounding the survey area was assessed for its suitability to support red squirrel. Field signs were searched for looking for any dreys, feeding signs or sightings of red squirrels.

3. DESK STUDY.

3.1. Designated Sites and Habitats.

3.1.1. Statutory Designated Sites.

Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), Special Protection Area (SPA), National Parks: The Dark Peak SSSI, South Pennine Moors Phase 2 SAC, Peak District Moors (South Pennine Moors Phase 1) SPA, and the Peak District National Park, which all cover the same area, are located ~1 km southwest of the survey area as indicated in the map below. Natural England guidance on proposed developments within the SSSI impact risk zones of the survey area state that “You do not need to consult Natural England on the proposed development at this location... the proposed development is unlikely to have a harmful effect on terrestrial Sites of Special Scientific Interest (SSSIs) and the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin”.



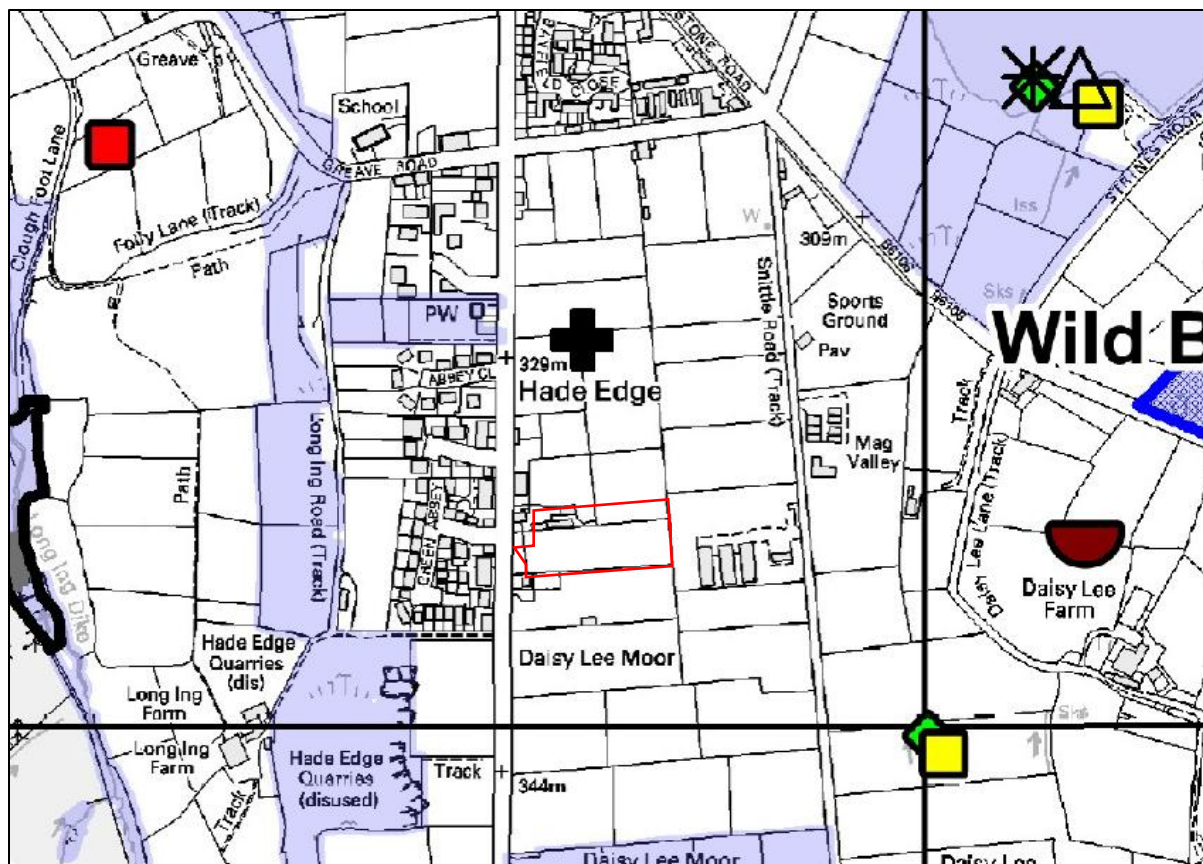
3.1.2. Non-Statutory Designated Sites.

Local Wildlife Sites (LWS): Three LWS are located within 2 km of the survey area, as can be seen in the map above. Wild Boar Clough LWS is the closest and is located ~420 m to the east (grid reference: SE 154 054). Morton Wood LWS is located ~930 m to the

northeast (grid reference: SE 157 063). Yatehome Reservoir and Plantations LWS is located ~1.85 km to the west (grid reference: SE 114 053).

3.1.3. Wildlife Habitat Networks.

Many pockets of the Kirklees Wildlife Habitat Network (indicated in blue shading on the map below) are found within 2 km of the site, although none lie within the survey area.



3.1.4. Ancient Woodland.

One area of ancient woodland and two areas of ancient replanted woodland are found within a 2 km radius of the survey area, as can be seen in the map of [section 3.1.1](#) above. The ancient woodland is Morton Wood, located ~930 m to the northeast (grid reference: SE 157 063). Two areas of ancient replanted woodland are found in Holme Styles Wood, one being an area located ~500 m to the west and running along Hades Clough (grid reference: SE 13980 05093) and Reynard Clough (grid reference: SE 13890 05228), the other being 800 m to the northwest and encompassing the area of Fox Clough (grid reference: SE 13701 05631).

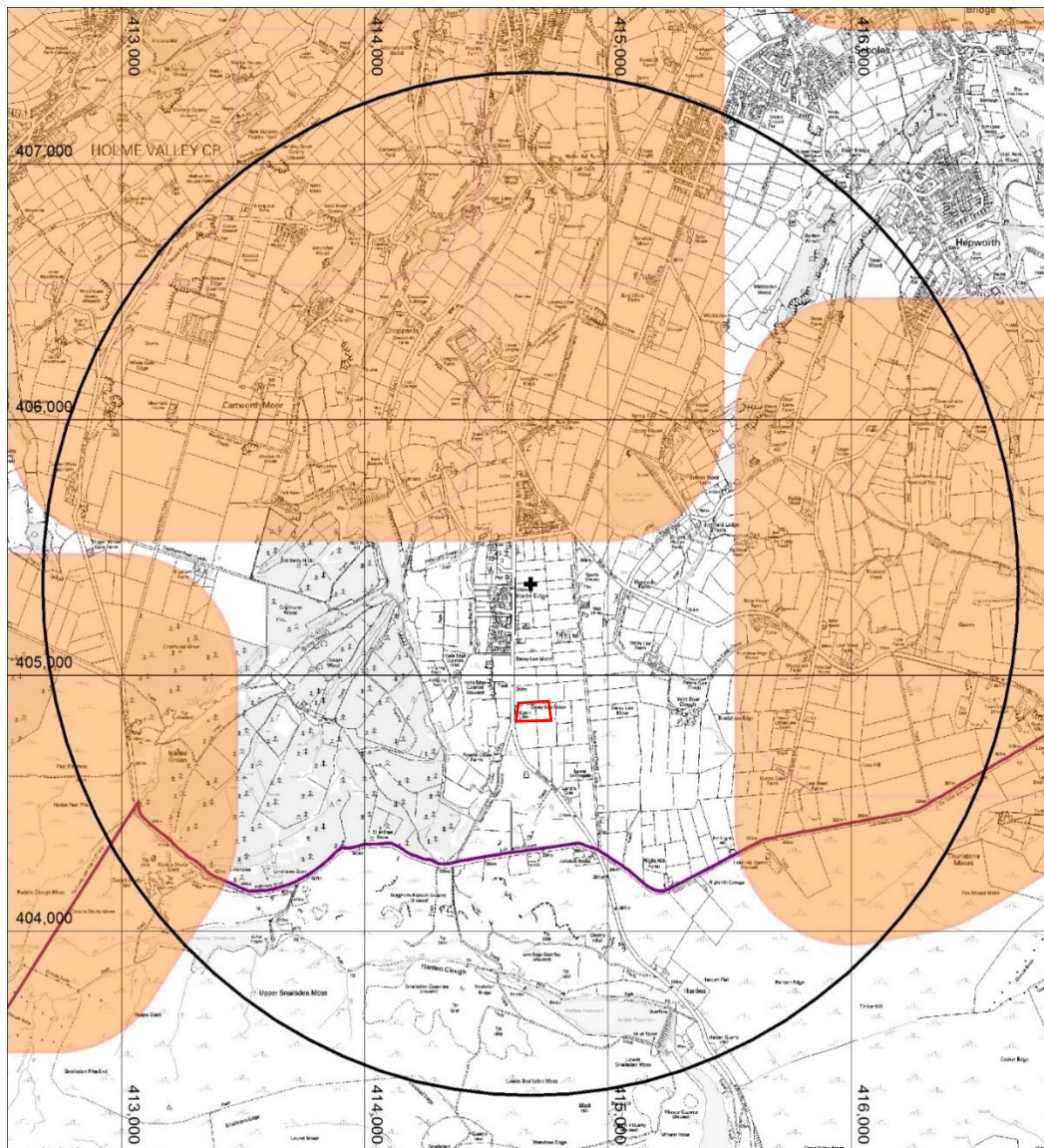
3.1.5. Priority Habitats Inventory (PHI).

No PHI priority habitats identified in the UK Biodiversity Action Plan were encountered on or close to the survey area.

3.2. Protected and Notable Species.

Various species records were returned within 2 km and the relevant records are summarised below.

- There are no badger records within 200 m of the survey area. The nearest sett record is ~1,300 m from the survey area. The survey area falls outside of the area of increased probability of badger activity (see map below)



- 22 records of common bat species were returned, with only one being within 500 m of the survey area, this of a foraging common pipistrelle located 390 m east of the survey area. Two other records of foraging common pipistrelle were returned within 1 km of the survey area, one 800m northwest and one 940 m east. All other records were located over 1 km from the survey area.
- Only one record of reptiles was returned, being a common lizard recorded at 950 m south from the survey area in 2005.
- Two records of brown hare were returned over 500 m from the survey area, the closest being 620 m east.
- One record of water vole was returned over 1.4 km south from the survey area and is not deemed relevant to the survey area.
- No records of great crested newts were returned.

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

4. SURVEY RESULTS AND EVALUATION.

4.1. Habitats and Flora.

4.1.1. Habitat Summary.

The primary habitats within the site are listed below and described in further detail individually within the sections 4.1.2 and onwards of this report. [Appendix I](#) of this report contains an annotated map marked up with the habitats within the site.

- Area habitats:
 - g4 – Modified grassland
 - h3b6 –Hazel scrub
 - u1b5 – Buildings
 - u1b6 – Other developed land
 - u1c – Artificial unvegetated – unsealed surface
 - u1d – Suburban Mosaic of Developed and Natural Surface: Vegetated Garden.
- Linear habitats:
 - h2a – Native hedgerow
 - u1e – Built linear feature
 - w1h – Other woodland – Mixed: Line of trees

4.1.2. g4 – Modified Grassland.

Three distinct sections of g4 Modified grassland that were used as grazing pasture were found on site. These were separated by dry-stone walls, stone walls, and fencing and are denoted as 'G1' to 'G3' in the annotated map of [Appendix I](#) and the Statutory Metric and condition assessment sheets accompanying this report and are individually described below.

G1.

Secondary codes: 32 Scattered trees; 523 Non-native.

G1 is a small field located in the centre-south of the survey area. G1 was dominated by perennial ryegrass (*Lolium perenne*). The frequent species are smooth meadow-grass (*Poa pratensis*) and Yorkshire fog (*Holcus lanatus*). The occasional species are cock's-

foot (*Dactylis glomerata*), creeping buttercup (*Ranunculus repens*), daisy (*Bellis perennis*), dandelion (*Taraxacum* sp.), and white clover (*Trifolium repens*). The rare species is broad-leaved dock (*Rumex obtusifolius*).

A condition assessment of 'poor' was given principally due to failing the essential criterion in having <6 species/m², the field having on average 4 species/m². Two other criteria also failed, based on a) an unvaried sward height, with all the sward <7 cm tall; b) physical damage from digging evident in >5% of the field.



G1 held one non-native cherry (*Prunus* sp.) tree in the south of the field that is denoted as 'T1' in the annotated map of [Appendix I](#) and the Statutory Metric and condition assessment sheets accompanying this report. T1 was classed as 'small' (diameter at breast height (dbh) 7.6-30 cm), having 20 cm dbh. It was given a condition assessment of 'moderate', failing three criteria based on: a) being non-native; b) showing evidence of a regular pruning regime, so the trees retain <75% of expected canopy for their age range and height; c) absence of natural ecological niches for vertebrates and invertebrates.



G2.

Secondary codes: 32 Scattered trees; 523 Non-native.

G2 is a medium-sized field located in the north-west of the survey area. G2 was dominated by perennial ryegrass (*Lolium perenne*). The frequent species is Yorkshire fog (*Holcus lanatus*). The occasional species are common bent (*Agrostis capillaris*), creeping buttercup (*Ranunculus repens*), and white clover (*Trifolium repens*). The rare species are broad-leaved dock (*Rumex obtusifolius*), common sorrel (*Rumex acetosa*), ribwort plantain (*Plantago lanceolata*), and spear thistle (*Cirsium vulgare*).

A condition assessment of 'poor' was given principally due to failing the essential criterion in having <6 species/m², the field having on average 4 species/m². Two other criteria also failed, based on a) an unvaried sward height, with all the sward <7 cm tall; b) physical damage from digging evident in $>5\%$ of the field.



Two non-native cherry (*Prunus* sp.) trees were present in the southeast of the parcel close to the fence and are denoted as 'T2' and 'T3' in the annotated map of [Appendix I](#) and the Statutory Metric and condition assessment Microsoft Excel© sheets accompanying this report. Both trees were classed as 'small' (diameter at breast height (dbh) 7.6-30 cm), having <10 cm dbh. They were both given a condition assessment of 'moderate', failing three criteria based on: a) being non-native; b) showing evidence of a regular pruning regime, so the trees retain $<75\%$ of expected canopy for their age range and height; c) absence of natural ecological niches for vertebrates and invertebrates.



G3.

G3 is a large field located in the east of the site. G3 was dominated by perennial ryegrass (*Lolium perenne*). The frequent species are creeping buttercup (*Ranunculus repens*), white clover (*Trifolium repens*), and Yorkshire fog (*Holcus lanatus*). The occasional species are common bent (*Agrostis capillaris*), crested dog's-tail (*Cynosurus cristatus*), and daisy (*Bellis perennis*). The rare species are broad-leaved dock (*Rumex obtusifolius*), common sorrel (*Rumex acetosa*), dandelion (*Taraxacum* sp.), and foxglove (*Digitalis purpurea*) which was found on the edges.

A condition assessment of 'poor' was given principally due to failing the essential criterion in having <6 species/m², the field having on average 4 species/m². Two other criteria also failed, based on a) an unvaried sward height, with all the sward <7 cm tall; b) physical damage from digging evident in >5% of the field.



4.1.3. h3b6 – Hazel Scrub.

Secondary codes: 523 Non-native

A small area of hazel (*Corylus avellana*) dominated scrub is located in the centre of the site, to the south-east of the G2 field, which is separated by a wooden fence. Other occasionally encountered species include alder (*Alnus glutinosa*), bramble (*Rubus fruticosus* agg.), sycamore (*Acer pseudoplatanus*) saplings, and the non-native cherry laurel (*Prunus laurocerasus*). common nettle (*Urtica dioica*) was frequent in the ground layer.

A condition assessment of 'poor' was given due to failing four criteria, based on a) only saplings, young shrubs and mature shrubs present (seedlings were absent); b) nettle covers >5%; c) scrub lacks a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat; d) absence of clearings, glades or rides within the scrub.



4.1.4. u1b5 – Buildings.

Horse stables were found along the south edge of the survey area, a large building used to house farm machinery was found opposite the stables and the southwest of the survey area also held a single-storey section of a house.



4.1.5. u1b6 – Other Developed Land.

A paved driveway and yard were found in the southwest of the survey area. No condition assessment is required for this habitat.



4.1.6. u1c – Artificial Unvegetated – Unsealed Surface.

An area of unvegetated unsealed surface was found in between the stables and the building used to house farm machinery.



4.1.7. u1d – Suburban Mosaic of Developed and Natural Surface: Vegetated Garden.

Three distinct sections of vegetated garden were found on site and are denoted as 'V1' to 'V3' in the annotated map of [Appendix I](#) and the Statutory Metric sheets accompanying this report and are individually described below. No condition assessment is required for these habitats.

V1.

V1 is located at the back of the house in the centre of the site. The abundant species is Yorkshire fog (*Holcus lanatus*). The frequent species is perennial ryegrass (*Lolium perenne*). The occasional species is white clover (*Trifolium repens*).

The south edge contained three non-native cherry (*Prunus* sp.) trees, one elder (*Sambucus nigra*) shrub, and other non-native ornamental shrubs. On the wall opposite the garden were a non-native bistropogon (*Bistropogon canariensis*) shrub and evergreen spindle (*Euonymus japonicus*).



Of the three non-native cherry (*Prunus* sp.) trees, only one had a dbh >7.5cm and is denoted as 'T4' in the annotated map of [Appendix I](#) and the Statutory Metric and condition assessment sheets accompanying this report. T4 was classed as 'small' (diameter at breast height (dbh) 7.6-30 cm), having 8 cm dbh. It was given a condition assessment of 'poor', failing four criteria based on: a) being non-native; b) showing evidence of a regular pruning regime, so the trees retain <75% of expected canopy for their age range and height; c) absence of natural ecological niches for vertebrates and invertebrates; d) <20% tree canopy oversailing vegetation beneath.



V2.

V2 is located in the north-west of the survey area. The area contained a mixture of shrubs including two elder (*Sambucus nigra*) shrubs, three non-native cherry (possibly *Prunus lusitanica*) shrubs, butterfly-bush (*Buddleja davidii*), and honeysuckle (*Lonicera* sp.). The ground flora was dominated by greater periwinkle (*Vinca major*) and common ivy (*Hedera helix*), with honesty (*Lunaria annua*) also present.



Two non-native trees were present in V2 and are denoted as 'T5' and 'T6' in the annotated map of Appendix I and the Statutory Metric and condition assessment sheets accompanying this report. T5 was a Lawson cypress (*Chamaecyparis lawsoniana*) classed as 'medium-sized' (dbh 31-60 cm), having ~50 cm dbh. T6 was a cherry laurel (*Prunus laurocerasus*) classed as 'small' (diameter at breast height (dbh) 7.6-30 cm), having <30 cm dbh. They were both given a condition assessment of 'moderate', failing two criteria based on: a) being non-native; b) absence of natural ecological niches for vertebrates and invertebrates.



V3.

It was not possible to see V3 but satellite images show it to be vegetated garden.

4.1.8. h2a – Native Hedgerow.

H1 is a short 5 m section of hedgerow located in the north-east corner of field G1. The hedgerow measures 2.5 m in height and 1.5m in width. It was dominated by six large, overgrown hawthorn (*Crataegus monogyna*) bushes and one cherry laurel (*Prunus laurocerasus*).

A condition score of 'poor' was given as five of the eight criteria failed, based on: a) gap between ground and base of canopy >0.5 m for >90% of length; b) disturbed ground around the base of the hedgerow; c) plant species indicative of nutrient enrichment of soils dominate >20% cover of the area of undisturbed ground, with nettles abundant; d) non-native *Prunus laurocerasus* forms >10% of the hedgerow; e) <90% of the hedgerow or undisturbed ground is free of damage caused by human activities.



4.1.9. u1e – Built Linear Feature.

Dry-stone wall was found along the entirety of the boundary of field G3, as well as the northern boundary of field G2. Other boundaries were made of fence or stone wall. No condition assessment is required for this habitat.



4.1.10. w1h – Other Woodland – Mixed: Line of Trees.

LT1 is located in the north-west of the site, forming the northern boundary of modified grassland G2. The eastern section of LT1 is within a wire fence, while the western section is not fenced and has trees more scattered, though all within 5 m of each other.

LT1 consists of:

- 2 Austrian pine (*Pinus nigra*)
- 1 pedunculate oak (*Quercus robur*)
- 4 cherry plum (*Prunus cerasifera*) at the eastern end
- 3 holly (*Ilex aquifolium*)
- Multiple cherry laurel (*Prunus laurocerasus*) shrubs
- 1 downy birch (*Betula pubescens*)
- 1 ash (*Fraxinus excelsior*)
- 4 sycamore (*Acer pseudoplatanus*)
- 1 hawthorn (*Crataegus monogyna*) at the far western end
- 2 bird cherry (*Prunus padus*) trees
- 1 spruce (*Abies* sp.) - a very small tree
- Honeysuckle (*Lonicera periclymenum*)

A condition score of 'poor' was given as three criteria failed, based on: a) < 70% of trees are native species; b) no trees had veteran features and or natural ecological niches for vertebrates and invertebrates; c) there is no undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities.



4.2. Fauna.

Badger.

No badger setts or signs were identified within the survey area. The data search also retrieved no badger records within 200 m of the survey area and no sett records within 1 km of the survey area and the survey area does not fall just within the area of increased probability of badger activity (see [section 3.2](#)). Therefore, it is deemed that the works will have no impact upon badgers.

Riparian mammals and aquatic species.

There is no watercourse within, or close to, the survey area to provide suitable habitat for otter, water vole or white-clawed crayfish. Therefore, the works will have no impact upon any of these species.

Bat.

Many buildings were found within the survey area that could have potential to host roosting bats, and are individually listed here:

Large building for storing farm machinery

The large building used to store farm machinery was in the southeast of the survey area and is the building situated alongside the hazel scrub S1. It had gaps under the eaves of the roof or between the wooden beams and the brickwork, which would provide suitable roosting habitat. The landowner did mention that the whole building becomes filled with dust and smoke when machinery is turned on and that this may deter bats from roosting there. No bat droppings were observed. This building is assessed as having low potential for roosting bats in line with the Bat Conservation Trust Good Practice Guidelines.





Stable block

The stable block was opposite the large building for storing farm machinery and was separated into different rooms. The room farthest east was used as a recreation room and offered no roosting habitat and was fully sealed off inside. No notable areas of roosting potential were found on the outside.



Other stable block rooms further west were used as a stables and held some potential for roosting bats between the beams and corrugated metal roof. Some gaps were found at

the top of the brick walls, which could hold potential for roosting bats. Some gaps had been filled in with epoxy filler.



The final two rooms furthest west of the stable block were used as a garage and only the eastern room could be inspected. There were gaps between the polystyrene roof layer and the corrugated roof and gaps present between the breeze-blocks and the wooden beams, which could hold potential for roosting bats. The stable blocks have been assessed as having low potential for roosting bats in line with the Bat Conservation Trust Good Practice Guidelines.



The other buildings on site included the single-storey extension to the house and the garden shed, which were assessed as having no potential for roosting bats due to a complete lack of suitable roosting features.



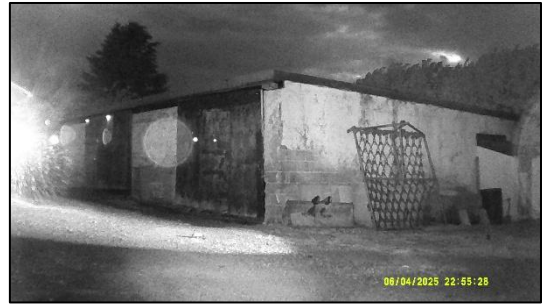
The trees within the survey area lacked features suitable for use by roosting bats. Therefore, the survey area is assessed as having potential for roosting bats.

The survey area provides some habitat for foraging and commuting bats, with vegetative corridors of LT1 present and therefore, the works may negatively impact upon roosting bats or foraging and commuting bats unless precautionary measures are in place.

As the farm machinery store and stable block were assessed as having low potential for roosting bats, a dusk emergence survey was recommended and subsequently carried out.

The dusk emergence survey was carried out on 4th June 2026, led by Mitch Greenhalgh who holds a level 2 Natural England survey licence for bats. He was accompanied by an experienced assistant. The evening was mild with a temperature of 16°C at the start of the survey, and a breeze measure 1 on the Beaufort Wind Scale.

Four infra-red cameras and torches were utilised to assist the survey, along with two Anabat Rangers to allow for video and call analysis post-survey. The start and end photographs from each camera are shown below.



Activity was limited throughout the night to a small number of common pipistrelle passes to the south of the site within the neighbouring field. However, a roost was identified within a neighbouring building. One common pipistrelle was observed emerging from the doorway of the building and upon inspection, a roost location was identified atop the walls of the building beneath the timber beams which support the roof.

The aerial photograph below shows the roost building via the blue box and the surveyed buildings via the red boxes.



The photographs below show the entry point to the building.



The photographs below show the exact roosting location.



Regardless, the roost building lies outside of the scope of works so impacts to bats should be avoidable during the works. No bats were found to enter or emerge from either of the surveyed buildings during the survey.

Great crested newt.

There are no ponds close to the survey area that could provide suitable breeding habitat for great crested newts. Two large reservoirs are found within 500 m, these being Boshaw Whams Reservoir, located ~440 m northeast of the survey area, and Holme Styles Reservoir, located ~480 m northwest of the survey area. Both of these reservoirs are at lower elevations and with obstacles such as main roads and numerous fields with dry-stone wall boundaries to cross, making it unlikely that any newts might migrate uphill to the survey area from these. Furthermore, no records of great crested newts within 2 km of the survey area were returned by the data search. Therefore, it is deemed that the works will have no impact upon great crested newts.



Nesting bird.

The survey area provides some suitable habitat for nesting birds within the nesting season, which extends from March to August each year. This suitable habitat is principally within the farm buildings, where numerous nests were observed including those of

swallow. Swallows were also observed actively nesting during the dusk emergence survey.



Other suitable habitat includes the trees, the h3b6 hazel scrub, and the native hedgerow H1, although no nests were observed in these. While the grasslands could be suitable habitat, the frequent grazing activities will deter birds from nesting in these areas. Therefore, any works carried out within the nesting season may have some limited impact on nesting birds.

Reptile.

The survey area offers some suitable habitat for reptiles, this being principally found within the dry-stone walls bordering and intersecting the site, as well as the undergrowth within the h3b6 Other hazel scrub, the line of trees LT1, the native hedgerow H1, and the vegetated garden V2, that all provide appropriate shelter. However, provided precautionary measures are in place, the works are unlikely to impact reptiles.

Hedgehog.

The survey area offers some suitable habitat for hedgehogs, this principally being found within the h3b6 hazel scrub, the line of trees LT1, the native hedgerow H1, and the

vegetated garden V2, that all provide appropriate shelter. The vast majority of the site is open field with little shelter and no records of hedgehog were returned from the data search. Provided that necessary mitigation is in place, it is unlikely that the works will impact hedgehogs.

Red squirrel and hazel dormouse.

The site lies outside of the known natural home range of both hazel dormouse and red squirrel and therefore, the works will not impact these species.

4.3. Invasive Non-Native Species.

No invasive, non-native species (INNS) listed on schedule 9 of the Wildlife and Countryside Act (1981) were identified within the survey area. Therefore, the works pose no threat of spreading any such INNS to the further environment.

4.4. Designated Sites and Habitats.

The survey area does not lie within or adjacent to any designated sites or habitats, although an area of the Kirklees Wildlife Habitat Network is located 150 m to the west. Therefore, the works will have no impact on designated sites and habitats.

5. BIODIVERSITY NET GAIN BASELINE ASSESSMENT.

The below table shows the baseline Biodiversity Unit (BU) value for the site, separated into area habitat and hedgerow habitat. This is designed to give an indication of the biodiversity value of the site prior to any development. The total baseline of the site was calculated at 1.78 BU for area habitats and 0.13 BU for hedgerow habitats. No watercourse habitats were found on the site. The Microsoft Excel© files of metric and condition assessments accompany this report.

5.1. On-site Baseline Area Habitat Units.

The baseline area habitat calculations include all area habitats that lie within the red line boundary of the site. The scores for each habitat and a total are shown below.

Area Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Strategic Significance multiplier	Biodiversity units (BU)*
Modified grassland: G1	0.0269	Low	Poor	1	0.05
Modified grassland: G2	0.2294	Low	Poor	1	0.46
Modified grassland: G3	0.4496	Low	Poor	1	0.90
Hazel scrub: S1	0.0091	Medium	Poor	1.15	0.04
Rural tree: T1	0.0041	Medium	Moderate	1	0.03
Rural tree: T2	0.0041	Medium	Moderate	1	0.03
Rural tree: T3	0.0041	Medium	Moderate	1	0.03
Rural tree: T4	0.0041	Medium	Poor	1	0.02
Rural tree: T5	0.0163	Medium	Moderate	1	0.13
Rural tree: T6	0.0041	Medium	Moderate	1	0.03
Artificial unvegetated, unsealed surface	0.0343	V.Low	N/A - Other	1	0
Developed land; sealed surface	0.0518	V.Low	N/A - Other	1	0
Total*	0.80**				1.73

*Figures are rounded to two decimal places.

**Individual tree area values do not contribute to the total area value.

5.2. Off-site Baseline Area Habitat Units

To offset the deficit on site, a parcel of off-site land will be used, which is located in close proximity to the site and was used as a storage / compound area for the previous development to the north of this site. This land is detailed below:

The parcel of land is situated Between Boshaw View and Snittle Road, which is outlined within a blue line boundary in the aerial image below with photographs of the area also found below:





The majority of this area was found to be g3c Other neutral grassland in poor condition, with a small area of u1f Sparsely vegetated urban land in the northeast corner. As g3c Other neutral grassland is a medium distinctiveness habitat, trading rules stipulate that it can only be replaced by another grassland habitat or a high distinctiveness habitat. There are a number of options for offsetting on this land based on the aforementioned trading rules. The most readily achievable option for offsetting would be to enhance the g3c Other neutral grassland by raising the condition score from 'poor' to 'good', which would give the necessary uplift, and also leave room for some of the area to be planted with scrub to satisfy the trading rules. This would require careful management to achieve a) a noticeable and distinct UKHab neutral grassland plant community containing a consistently high proportion of characteristic indicator species; b) a species rich sward, with ≥ 10 species/m²; c) a varied sward height, with at least 20% of the sward less than 7 cm and at least 20% is more than 7 cm; d) a cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens; e) a cover of bracken *Pteridium aquilinum* less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) less than 5%; f) a combined cover of species indicative of suboptimal condition and physical damage less than 5% of the total area, with no invasive non-native plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) present.

This option was present to the client and agreed upon, however, to use all available potential biodiversity units for this site would create an excess well above the necessary 10% and therefore, only the land necessary to achieve 10% will be achieved, with the remainder to be used to offset a nearby development which is to be submitted in tandem with this one.

The baseline habitats for the parcel to be used are therefore shown below:

Area Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Strategic Significance multiplier	Biodiversity units (BU)*
Other neutral grassland	0.175	Medium	Poor	1	0.7
Ruderal / ephemeral	0.0337	Low	Poor	1	0.13
Total*	0.2087				0.83

5.3. Baseline Hedgerow Units.

The baseline hedgerow calculations include all hedgerows or other vegetative linear features that lie within the red line boundary of the site. The scores for each habitat and a total are shown below.

Hedgerow Habitat Type	Extent (km)	Distinctiveness	Condition Assessment	Strategic Significance multiplier	Biodiversity units (BU)*
Native hedgerow: H1	0.0081	Low	Poor	1	0.02
Line of trees: LT1	0.0546	Low	Poor	1	0.11
Total*	0.06*				0.13

*Figures are rounded to two decimal places.

5.4. On-site Post-Development Area Habitat Units.

The post-development area habitat calculations include all area habitats that lie within the red line boundary of the site post-works. The scores for each habitat and a total are shown below.

Area Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Strategic Significance multiplier	Biodiversity units (BU)*
Developed land	0.506	V.Low	N/A	1	0
Vegetated garden	0.0281	Low	N/A	1	0.54
Introduced shrub	0.0078	Low	N/A	1	0.02
Other neutral grassland	0.0059	Medium	Moderate	1	0.04
Total*	0.8				0.6

Therefore, on-site, there will be a loss of 1.13 units, equivalent to a 65.41% loss.

5.5. Off-site Post-Development Area Habitat Units.

The net gain will be achieved through the uplift of 0.175ha of the existing poor condition grassland to good condition, the conversion of the sparsely vegetated land to mixed scrub, and the introduction of 25 new small trees. The aforementioned off-site land will be utilised to counter this deficit. The off-site units will look as follows.

Area Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Strategic Significance multiplier	Biodiversity units (BU)*
Mixed Scrub	0.0337	Low	N/A	1.15	0.32
Other neutral grassland	0.175	Medium	Low → Good	1	1.52
Rural tree	0.1018	Medium	Moderate	1	0.31

The above ensures that the development achieves a total uplift of 0.18 units, equivalent to a **10.53% gain** and also meets all the trading rules.

5.6. Post-Development Hedgerow Units.

The post-works hedgerow calculations include all hedgerows that lie within the red line boundary of the site to be created post-development. The scores for each habitat and a total are shown below.

Hedgerow Habitat Type	Extent (km)	Distinctiveness	Condition Assessment	Strategic Significance multiplier	Biodiversity units (BU)*
Native hedgerow	0.05	Low	Moderate	1	0.17
Total*					

*Figures are rounded to two decimal places.

The introduction of several new native hedgerows around the perimeter of the site will ensure a net gain of linear features is achieved. The total uplift is 0.04 units, equivalent to a **33.73% gain**.

5.7. BNG Evaluation.

To summarise, utilising both on-site and off-site land, the site will achieve a total uplift of 0.18 habitat units, equivalent to a 10.53% gain and a total uplift of 0.04 hedgerow units, equivalent to a 33.73% gain. All trading rules will also be satisfied. The below table is extrapolated from the statutory metric.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	0.18
	<i>Hedgerow units</i>	0.04
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	10.53%
	<i>Hedgerow units</i>	33.73%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

6.RECOMMENDATIONS.

6.1.General Considerations.

This Preliminary Ecological Appraisal (PEA) report is designed to advise the client of the survey results and BNG assessment so that any potential ecological constraints identified can be considered. All recommended surveys have now been concluded and any further recommendations given below.

6.2.Bats.

No bats were identified within the on site buildings during the dusk emergence surveys, but a roost was identified within a building adjacent to the site. As there is some scope to cause disturbance within the immediate surrounding area, it is recommended that a Construction Environmental Management Plan (CEMP) be produced to determine how the works will proceed with no impacts to bats. Further species can be covered within the CEMP.

6.3.Nesting Birds.

It is recommended that any vegetation or site clearance works are carried out outside the nesting bird season, which extends from March to August each year. If this is not possible, it is recommended that the clearance works are immediately preceded by a nesting bird survey which should be undertaken by a competent person. Any active nests found, plus a suitable buffer around them, must be left undisturbed until the young have fledged.

It is recommended that four swallow cups be fitted around the development to compensate for the loss of nesting habitat within the existing buildings. These must be situated beneath a canopy such as overhanging eaves or within an outbuilding such as a car port, garage or bike store, so long as it is continuously accessible between the months of April and September.

6.4.Reptiles and Other Small Fauna.

As a precaution, it is recommended that measures are put in place to ensure no harm is caused to any reptiles, or other fauna. These details can be confirmed within the CEMP but will generally include the following measures:

- Prior to site clearance, all vegetation should be cut to a minimum of 200 mm above ground level and the arisings should be carefully removed from site. This will encourage any reptiles or other small fauna species at ground level to vacate the area and will deter them from returning.
- Any stored materials on site should be lifted cleanly off the ground and not dragged to avoid any harm to small mammals taking refuge underneath.
- Any clearance of potential refugia, such as grass cuttings or piles or brash should not be undertaken over winter, when the species may be hibernating.
- No excavations should be left open overnight, if necessary, these should be left with a mammal ramp to allow the escape of any fauna that may use the site.
- In the unlikely event that any reptiles, hedgehogs, or other small fauna are identified during the works, they should be left undisturbed and allowed to escape the works area of their own accord. If multiple reptiles or hedgehogs or hibernating reptiles or hedgehogs are identified, then works should cease and Whitcher Wildlife should be contacted for further advice.

6.5. BNG.

A net gain has been sufficiently achieved utilising both on and off-site land. The proposals however include uplifting low condition grassland to high condition which will take a reasonable level of care and management. Further details of how this will be achieved will be expected to be provided within a Habitat Management and Monitoring Plan (HMMP) that will be conditioned post-planning approval.

6.6. Biodiversity Enhancements.

In addition to ensuring a net gain of biodiversity units is achieved on the site, there will be an expectation to provide some enhancements for fauna species on the site. It is recommended that integrated bat and bird boxes are included in the final design of the buildings on site.

13 cm x 13 cm gaps should be left at the bases of garden fences, and gates should be raised at least 15 cm, to allow for the passage of small mammals.

Prepared by:	
Steven Paul Sylvester PhD MSc BSc	Date: 5 th March 2025.
Revision by:	
Mitch Greenhalgh BSc ACIEEM	Date: 9 th June 2026

Checked by:	
Mitchel Greenhalgh BSc ACIEEM.	Date: 10 th March 2025.
Revision checked by:	
Ruth Georgiou BSc MCIEEM	Date: 10 th June 2026

7. REFERENCES.

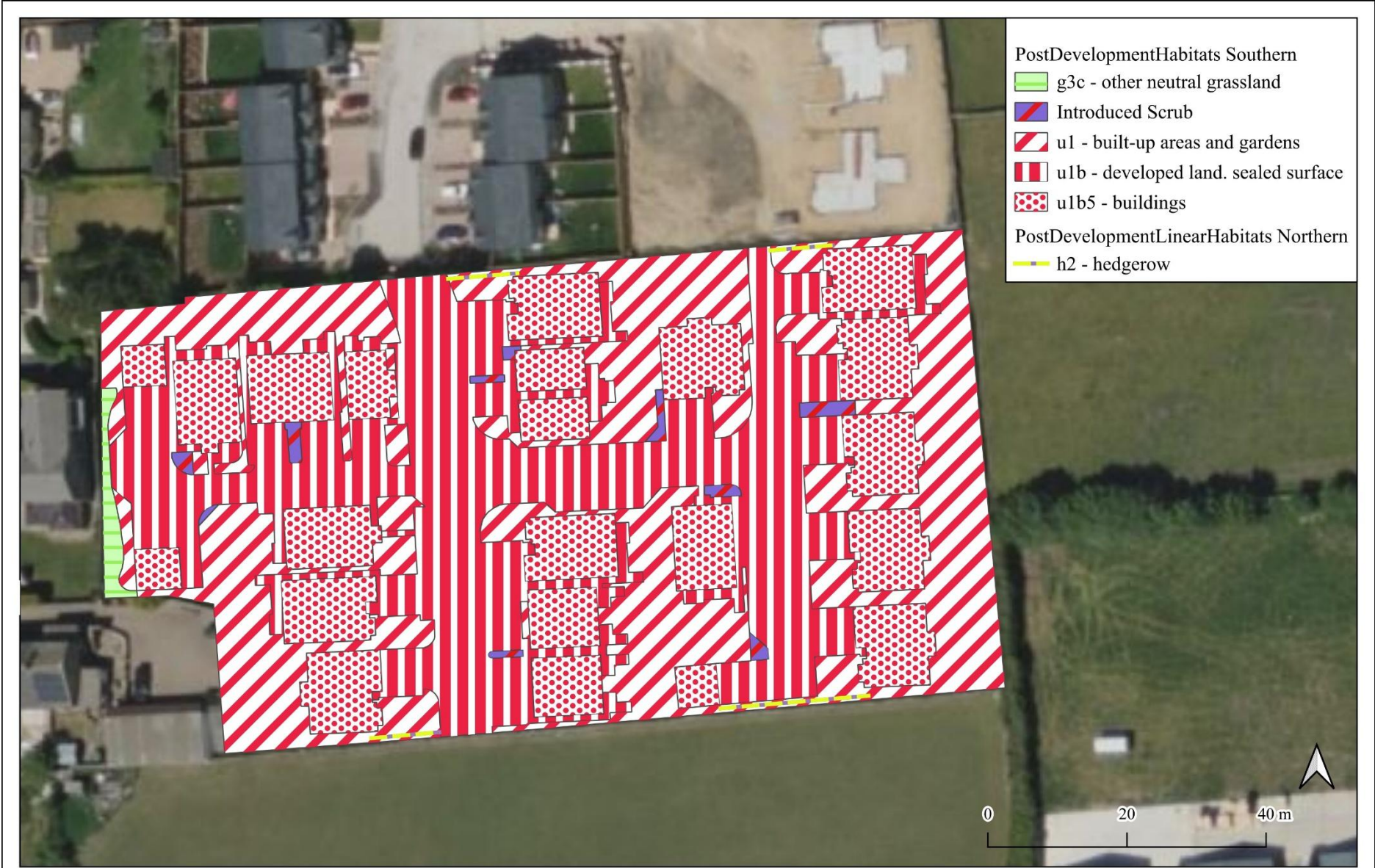
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APPENDIX I. HABITAT MAP – ON-SITE BASELINE.



APPENDIX II. HABITAT MAP – ON-SITE POST-DEVELOPMENT



Site: LAND BEHIND 323 DUNFORD ROAD, HADE EDGE, KIRKLEES.

Reference: 250115 - S

Date: 29.05.2026

Produced by: Samuel Bentley



APPENDIX III. 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 IV. REPTILE INFORMATION.

Ecology

There are five main species of reptile that reside in the UK; Common or Viviparous Lizard (*Lacerta vivipara*); Sand Lizard (*Lacerta agilis*); Slow Worm (*Anguis fragilis*); Grass Snake (*Natrix natrix*) and Adder (*Vipera berus*). The Adder is the only native species that is venomous although this is rarely harmful to humans.

Reptiles occupy a wide range of habitats including woodland, marshes, heathland, moors, sand dunes, hedgerows and bogs. Sand Lizards are confined to moorland and coastal sand dunes where they lay their eggs in the warm sand. The range of the Sand Lizard in the UK is therefore very limited. Slow Worms can be found in a wide variety of habitats throughout Britain and is the most likely reptile to be found in urban and suburban environments.

Maintaining the right body temperature is vital to reptiles' survival. In the morning, they find a warm basking site to heat up their bodies, then later they may move back into the shade because they do not sweat and have to be careful not to overheat. During hot summers, Adders will try to move to damper, cooler sites.

Over winter reptiles will hibernate in burrows or under logs where they are protected from the cold and predators, emerging from February onwards as the weather warms up.

Reptiles generally begin to mate April to May with young born in late July to September. The Common Lizard gives birth to live young, hence the term viviparous, meaning live bearing.

Surveys

Reptile surveys involve the searching of refuge such as logs and stones for any animal sheltering below. Artificial refuge may be laid out on site for the purpose of reptile surveys.

Legislation

Reptiles are protected under Appendix II (sand lizards) and Appendix III (common lizard, slow worms, smooth snake, grass snake and adders) of the BERN Convention (1982),

partially protected under Schedule 5 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive and are all listed under section 41 of the Natural Environment and Communities Act (2006) making them a species of principal importance.

This makes it an offence to disturb any reptile while it is occupying a structure or place it uses for shelter or protection or to obstruct access to such a place.

APPENDIX V. 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 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.