Land off Coniston Avenue

Preliminary Ecological Appraisal and Biodiversity Net Gain Assessment

Conroy Brooks Group

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Report prepared by: Envance, Westminster House, 10, Westminster Road, Macclesfield, SK10 0BX.

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Summary

Envance was commissioned by Conroy Brook Group in June 2024 to carry out an ecological appraisal of the Land South of Coniston Avenue, Darton (the Site), in relation to the acquisition and proposed future development of the Site for residential purposes.

The Site comprises the eastern section of abandoned agricultural land previously used to grow cereal crops (refer to Figure 1). There is a small section of hedge and a grassy field verge within the Site. It is anticipated that all existing habitats will be removed to facilitate the development of the Site for residential use. The hedges within the Site meet the criteria for those that are listed as Habitats of Principal Importance under the provisions of the NERC Act 2006.

The data search identified one statutory designated site, and two non-statutory sites within the search area. The Site is not located within or adjacent to any statutory or non-statutory designated site and given the geographical separation of the Site from these designated sites, no direct or indirect impacts are anticipated

A semi-mature oak tree at the south east of the Site has features that may provide opportunities for roosting bats. Should this tree be affected by the proposals, further survey work may be required. The proposals currently allow for the tree to be retained in its entirety.

It is not anticipated that any other survey work is required to assess impacts to ecology. Avoidance and mitigation measures have been proposed and include standard practice for avoiding harm to nesting birds and hibernating hedgehogs.

A biodiversity assessment has been undertaken using the current available biodiversity metric and guidance. Barnsley Metropolitan Borough Council West Yorkshire Ecology Service (WYES) and the local planning authority ecologist will consider this assessment with respect to the Local Plan policies (current and emerging) and the provisions within the National Planning Policy Framework.

The existing pre-development baseline habitat units on Site are calculated to be 3.87 Habitat Units and 0.78 Hedgerow Units.

Under dwg. 2427 - 0301 - P06 (indicated on Figure 2) the post-development habitat creation outcome will be 4.39 Habitat Units and 0.93 Hedgerow Units. The change in Habitat Units is + 0.52 HU, equivalent to + 13.41% net gain. The change in Hedgerow Units is +0.11 HeU, equivalent to +13.19 %

As part of the design for the greenspace provision within the development, the following habitat creation measures are proposed:

- The use of native shrubs and trees to provide additional bird nesting habitats on Site. The inclusion of species that are fruit and berry bearing will also provide an additional foraging resource for birds.
- A proportion of the new dwellings to be constructed within the developable area of the Site should include the provision of integral boxes for nesting birds, including terrace boxes for house sparrow.
- Areas of grassland created should comprise species-rich wildflower areas where possible, which will contribute to the Local BAP habitat action plan. Any amenity grassland within the developable area should use a species-rich flowering lawn mix.
- Boundaries of the Site will be marked using species rich hedgerows along the new western and southern boundaries (with other boundary hedges being retained).
- The newly created habitats should be managed for their wildlife interest and a habitat mitigation and management plan (HMMP) should be produced to provide management

prescriptions to ensure the favourable management of these habitats.

No other ecological constraints were identified. Assessment methodologies, results and subsequent recommendations and/or mitigation measures are provided within this report, including any opportunities for ecological enhancements, where appropriate.

1. Introduction

1.1.1 Envance UK was commissioned by Conroy Brook Group in June 2024 to undertake a Preliminary Ecological Assessment (PEA) and Biodiversity Net Gain Assessment (BNG) of a site Land South of Coniston Avenue, Darton located between Sackup Lane, Coniston Avenue and Pennine View (central Ordnance Survey National Grid Reference SE 32169 10868; hereafter referred to as the 'Site'), with the purpose of residential development (the 'Development') at the Site. The Site boundary is shown in **Figure 1**.

1.1.2 The site comprises a section of abandoned agricultural land previously used for growing cereal crops, and sections of land still utilised as cereal cropland. Areas of residential development lie to the south, east and north of the Site, and further agricultural land lies to the west. The wider landscape to the includes areas of open countryside and pockets of woodland.

1.1.3 Habitats present within the Site were classified and the Site's potential to support notable and protected species, listed within both UK and European nature conservation legislation, namely the Wildlife & Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended), was reviewed. Any impacts upon these habitats or species that may result from the Development were then assessed.

1.1.4 This report documents survey findings and evaluates the likely existing ecological interests of the site in line with industry guidelines (BSI, 2013; CIEEM, 2017, 2018). Methodologies employed are described, including site surveys and evaluation. Recommendations for any further survey work and/or mitigation measures are included, where appropriate.

1.1.5 The report also identifies measures to inform the design of the proposed development, where possible at this stage, in relation to avoidance, reduction (mitigation) and compensation for anticipated ecological impacts based on the findings of the ecology work to date, in line with relevant planning policy and wildlife legislation, refer to Section 4.

1.1.6 The Biodiversity Assessment considers the baseline survey information collected during the survey, to enable the completion of the Statutory Biodiversity Metric (SBM) to calculate the pre-development baseline value of the Site, and calculation of the habitat losses /gains as a result of the proposed development.

2. Methodology

2.1 Desk Study and Data Consultation

2.1.1 Desk study was undertaken to inform the requirements for survey and obtain additional ecological information outside the scope of field survey. The following sources were consulted to obtain relevant ecological information from within 2 km of the study area:

- Sheffield Biological Records Centre;
- Multi Agency Geographic Information Centre (MAGIC) website (www.magic.gov.uk);

2.1.2 The following information was sought and considered:

- records of notable protected and priority species;
- records of priority habitats;
- details of any statutory sites of ecological interest e.g. Sites of Special Scientific Interest (SSSI), Special Protection Area (SPA) etc., and
- details of any non-statutory sites of ecological interest e.g. Sites of Importance for Nature Conservation (SINC), Local Wildlife Sites (LWS) etc.
- a check was also undertaken of online photographs and maps (Bing Maps 1:25,000, accessed 2nd July 2024) to identify any ponds within 500 m of the Site.

2.1.3 The Barnsley and west Yorkshire' Local Plan and Biodiversity Action Plan were reviewed to inform the habitat and protected species assessments and the recommended enhancements for the development.

2.1.4 Only receptors considered to pose a potential constraint to the proposed scheme are presented within this report, with the locations of any significant records and/or designated sites presented in **Figures 1 & 2**. Full records can be viewed on request.

2.2 Field Survey

2.2.1 A Phase 1 habitat survey was undertaken by Envance ecologists Stuart Robinson on 6th June 2024. The survey followed UK Habitat Classification (UKHab) survey methodology (UKHAB Ltd, 2023), where the habitats and vegetation types present were recorded, together with an indication of their relative abundance using the DAFOR scale (D = dominant, A = abundant, F = frequent, O = occasional, R = rare). This survey method aims to characterise habitats and communities present and is not intended to provide a complete list of all species occurring across the Site.

2.2.2 Site habitats were also assessed for their suitability to support protected or notable species. Any signs of the presence of such species were recorded, including observations of tracks, feeding remains, nests and burrows. Trees and buildings within the Site were assessed for their potential to support roosting bats according to the methodology of Collins (2023).

2.3 Baseline Biodiversity

2.3.1 Biodiversity accounting metrics were employed to assess the baseline biodiversity value of the Site and identify any features of significant value.

2.3.2 The assessment used the Statutory Biodiversity Metric (SBM) calculation tool (DEFRA, 2023). Habitat measurements were made using digital mapping software (QGIS Geographic Information System version 3.28). Habitat condition was assessed according to the criteria outlined by DEFRA (2023). The baseline survey and condition assessment were undertaken during the Habitat condition assessment

survey by Envance ecologists on 6th June 2024. Full details of the survey and assessment methodology are given in **Appendix 5**.

2.3.3 It should be noted that numbers within the SBM, especially habitat areas, are subject to two decimal place rounding. Therefore, there may be small apparent margins of error, when in fact these are correct within the SBM and are due to rounding.

2.4 Policy and Legislation

2.4.1 The principal conservation legislation relevant to this report includes the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended), the Natural Environment and Rural Communities (NERC) Act 2006, the Protection of Badgers Act 1992 and the Hedgerow Regulations 1997.

2.4.2 The relevant primary legislation for the statutory framework for biodiversity net gain is principally set out under Schedule 7A (Biodiversity Gain in England) of the Town and Country Planning Act 1990. This legislation was inserted into the 1990 Act by Schedule 14 of the Environment Act 2021, and was amended by the Levelling Up and Regeneration Act 2023. The Biodiversity Gain (Town and Country Planning) (Consequential Amendments) Regulations 2024 made consequential amendments to other parts of the 1990 Act.

2.4.3 The biodiversity net gain regulations most directly relevant to planning are:

- The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024 which commence biodiversity net gain for most types of new planning applications and provides transitional arrangements for section 73 permissions.
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024 which prescribe exemptions for categories of development to which biodiversity net gain does not apply.
- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024 which amend the Town and Country Planning (Development Management Procedure) (England) Order 2015 and the Town and Country Planning (Section 62A Applications) (Procedure and Consequential Amendments) Order 2013 to include provisions in respect of applications for planning permission and the submission and determination of Biodiversity Gain Plans, as well as modifications of Schedule 7A of the Town and Country Planning Act 1990 for phased development.
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 which sets out the modifications for irreplaceable habitat.

2.4.4 Local policy is included in the Barnsley Local Plan 2021 (a plan to 2025 is in development), and the Barnsley Local Biodiversity Action Plan (Barnsley LBAP).

2.4.5 **Appendix 1** provides further details of policy and legislation.

2.5 Evaluation

2.5.1 The importance of ecological features was determined based on the guidance given by CIEEM (2018). Individual ecological receptors were assigned levels of importance for nature conservation in one of the following categories:

- international
- national
- regional

- county
- local
- less than local.

2.6 Limitations

2.6.1 This report serves to indicate the value of the site in nature conservation terms based upon the survey data gathered. As with any survey of this kind, the information collected defines the habitat types and quality and is not intended to be a record of every species present.

2.6.2 Despite these limitations, the combination of data obtained is considered sufficient to evaluate the nature conservation interests of the site and its environs and assess the nature, magnitude and significance of impacts to those interests associated with the proposed development.

3. Baseline Conditions

3.1 Site Description

3.1.1 The site is an abandoned agricultural land, approximately 1.62 ha, The eastern section of land was previously used to grow cereal crops. There is a small section of hedge and a grassy field verge within the Site. It is anticipated that all existing habitats will be removed to facilitate the development of the Site for residential use.

3.1.2 A large section of the Site was previously managed as a cereal crop. Management appears to have ceased approximately two seasons ago, as demonstrated by the presence of ruderal vegetation, with wheat actively growing in the south west of the site at the time of survey and remnants of old oat crop scattered at field edges. The hedges within the Site meet the criteria for those that are listed as Habitats of Principal Importance under the provisions of the NERC Act 2006.

3.1.3 Areas of residential development lie to the south, east and north of the Site, and further agricultural land lies to the west. The wider landscape to the west includes areas of open countryside and pockets of woodland.

3.2 Designated Sites

Statutory

3.2.1 MAGIC website identified one statutory designated site within the search area. Details of the site are shown in Table 1.

Table 1 - Statutory designated sites within the Zone of Influence of the Site.

Name and designation	Summary Interest	Distance from Site	Ecological Connectivity with Site
Notton Wood LNR	mixed woodland with stream and pond features	1.5 km north-east	Nil

3.2.2 Given the separation of the Site from the LNR, lack of ecological connectivity and the nature of the proposed development, no direct or indirect impacts on the LNR are anticipated.

Non-Statutory

3.2.3 There are two non-statutory wildlife sites located within 2 km of the Site. These sites are summarised in Table 2 below.

Table 2 - Non-statutory designated sites within the Zone of Influence of the Site.

Name and designation	Summary Interest	Distance from Site	Ecological Connectivity with Site
Husband Wood (Site of Ecological Importance)	Mixed deciduous woodland	330 m north west	Connected by a single hedgerow feature
Mapplewell Tip Local Wildlife Site	Noted importance as an open mosaic habitat	1.2 km south	Nil

3.3 Priority Habitat and Ancient Woodland

3.3.1 The nearest recorded ancient woodland is part of Husband Wood Ancient Semi-Natural Woodland,

330 m north-west of the Site. This woodland has limited connectivity to the Site, represented by a single hedgerow feature. Four other Ancient Semi-Natural or Replanted Woodlands are present within 2 km of the Site. These four other Ancient Woodlands have no direct connectivity to the Site.

3.3.2 The MAGIC website identified the following priority habitats within the search area: deciduous woodland, traditional orchards and open mosaic habitat. These areas were not shown to occur on or adjacent to the Site, neither do these habitats have connectivity to the Site.

3.4 Waterbodies

3.4.1 No waterbodies were recorded within the Site or within 250m of the Site. The nearest watercourse is the river Deane located 1.35km southwest of the site.

3.4.2 Due to the absence of any water bodies within 250m of the site, and the distance of the site from the river Deane, no impacts to water bodies or watercourses are expected from the proposed development.

3.5 Site Habitats

3.5.1 The habitats within the Site were mapped during the Extended habitat survey and are described below with geo-location and extent of each habitat type are outlined in Figure 3.. The frequency with which a species was recorded within the sward is indicated. The locations of the habitats are shown on the extended Phase 1 habitat survey results plan in Figure 1, which is presented in Section 7. The photographs and Target Notes (TNs) referred to in the text below are presented in Section 8.

3.5.2 Where appropriate, the Statutory Biodiversity Metric habitat classification is provided with the habitat area and full condition assessment criteria provided in Appendix 2.

Table 3 - Description of Site habitats[1].

Habitat	Description
Other neutral grassland g3c, 80	0.17 ha, poor condition. The southern field margin was approximately 4 m wide and included species-poor modified grassland / arable field margin. This margin is not considered to meet the UK Priority Habitat definition of arable field margins as it did not show evidence of deliberate management as a margin, nor was it considered a permanent feature. Yorkshire-fog, false oat-grass *Arrhenatherum elatius,* nettle, and remnants of common oat *Avena sativa* were all frequent to locally abundant. This habitat is common and widespread and is not Priority Habitat. It is of value to nature conservation at the Less than Local level because there is a relative abundance of similar habitat throughout the local area.

[1] The UKHab Classification habitat type is shown, followed by the corresponding Statutory Biodiversity Metric habitat type (which is used for calculation of the biodiversity baseline and biodiversity net-gain).

Arable	0.33 ha Condition N/A Two areas of the site to the west and south west are in use as agricultural land for cereal crops. This habitat does not carry a habitat condition value in the SBM
Modified grassland	1.12 ha poor condition Abandoned agricultural grassland previously used for cereal crops. Dominated by Yorkshire fog and creeping buttercup with occasional areas of rushes (**Photograph 1**). Species present include: false oat-grass (F), common mouse-ear (O), creeping thistle (F), spear thistle (O), red fescue (F), Yorkshire fog (D), common ragwort (O), soft rush (F), perennial rye-grass (F), creeping buttercup (L/D), prickly sow-thistle (R), white clover (O) and nettle (O). The southern field margin was approximately 4 m wide and included species-poor modified grassland / arable field margin. This margin is not considered to meet the UK Priority Habitat definition of arable field margins as it did not show evidence of deliberate management as a margin, nor was it considered a permanent feature. Yorkshire-fog, false oat-grass *Arrhenatherum elatius,* nettle, and remnants of common oat *Avena sativa* were all frequent to locally abundant. The parcel of land directly adjacent Coniston Avenue, in the north of the Site, is dominated by Yorkshire-fog and white clover *Trifolium repens*. It appears to be regularly mown, based on historic aerial images. For the purposes of biodiversity assessment, it is a 'modified grassland' in moderate ecological condition. This habitat is common and widespread and is not Priority Habitat. It is of value to nature conservation at the Less than Local level because there is a relative abundance of similar habitat throughout the local area.
Hedgerows	0.31 km hedgerows poor condition comprising 0.23 km of native hedgerow and 0.08 km hedgerow with trees. Approximately 35 m of species poor hedgerow, 1.5m wide and 2m high is present in the west of the site and continues westwards from the Site to Husband Wood (H2). Only two woody species present, hawthorn *Crataegus monogyna* and elder *Sambucus nigra*. The understorey was of limited diversity with cleavers *Galium aparine* and false oat-grass *Arrhenatherum elatius* abundant and common hogweed *Heracleum sphondylium* indicating nutrient enrichment.

	Hedges that form the boundaries of residential properties to the north, east and south of the abandoned agricultural plot were in poor condition (H1, H3, H4, H5 and H6). These hedges had significant gaps filled by Heras or wooden fencing and largely comprised of ornamental species including *Laburnum* sp., privet *Ligustrum ovafolium,* barberry *Berberis sp., c*ypress *thuja* sp., and *Cupressus* sp. Two sections of native hedgerow (H7, H8) are present in the south west of the site), only two woody species present, hawthorn and elder, though H8 does have an immature silver birch standard. The understorey was of limited diversity with cleavers *Galium aparine* and false oat-grass abundant and common hogweed indicating nutrient enrichment. The hedges fall under the definition of UK priority habitats for hedgerows, also listed in the Barnsley LBAP, but do not qualify as an 'important' hedge under the Hedgerows Regulations 1997.
Individual trees	Scattered trees on the southern boundary included two pedunculate oaks *Quercus robur*, a silver birch, and a sycamore *Acer pseudoplatanus*. These are not considered to form part of a hedge.

3.6 Protected Species

Amphibians

3.6.1 MAGIC website returned no granted European Protected Species licences for great crested newt *Triturus cristatus* within a 2 km radius around the Site.

3.6.2 The Sheffield Biological Records Centre data search returned no records for great crested newt within the search area. The data search returned records of smooth newt *Triturus vulgaris*, common toad *Bufo bufo* and common frog *Rana temporaria*, with the most recent records dating from 2014 to 2023. The closest records to the Site were for common toad and common frog located approximately 800 m south.

3.6.3 No ponds were recorded within the site or within 250m of the Site.

Badgers

3.6.4 The Sheffield Biological Records and WYER included two records of field-signs for badger. These were 700 m and 1 km southwest of the site. No signs of badger were identified during the Site survey. Mammal paths were identified across the site, however given the residential properties surrounding three sides of the Site and the nearby woodland, these could not be attributed to badger.

Bats

3.6.5 Sheffield Biological Records Centre and West Yorkshire Ecological Record (WYER) returned 21 records of bats within 2 km. The records range from 2016 to 2019 and are represented by four species: common pipistrelle *Pipistrellus pipistrellus,* soprano pipistrelle *P. pygmaeus*, Leisler's bat *Nyctalus leisleri,* and noctule bat *N. nyctalus*. The closest record to the Site is for an emergence of a common pipistrelle from a day roost 60 m north of the Site in 2018.

3.6.6 The MAGIC website returned no granted European Protected Species licences for bats within a 2 km radius around the Site. Many records were for foraging with limited roosts recorded within the search area.

3.6.7 The pedunculate oak in the southwest of the Site was observed to have rot-holes on a lateral branch at approximately 3 m height, as well as deadwood and dense ivy cover. This tree is considered to have moderate suitability for roosting bats (TN2, Figure 3) . A second oak on the southeastern boundary of the Site had limited features and was assessed to be of low suitability for roosting bats (TN3, Figure 3).

3.6.8 There are opportunities for bats to forage on / commute through the Site, along hedges and scattered trees. The Site forms part of the wider agricultural landscape, which connects the Site to areas of open countryside to the west and residential gardens to the east. There are other suitable habitats for foraging elsewhere in the immediate landscape (e.g. pockets of woodland and better condition hedgerows) as well as linear features that better join up these habitats.

Birds

3.6.9 The Sheffield Biological Records Centre and WYER data search returned 530 bird records from 67 species since 2014. These included records for the following farmland bird species of conservation concern in the Barnsley LBAP: lapwing *Vanellus vanellus*, linnet *Linaria cannabina*, grey partridge *Perdix perdix*, skylark *Alauda arvensis*, tree sparrow *Passer montanus*, yellowhammer *Emberiza citronella* and migrant yellow wagtail *Motacilla flava*.

3.6.10 Hedges on the Site have the potential to support breeding birds. The arable habitats are regularly managed and relatively enclosed and are not considered to provide preferred nesting habitat for ground-nesting birds. The abandoned cropland forming much of the site footprint had a short sward and open ground favoured by ground nesting birds, however three domestic cats were recorded within the site during the survey. The presence of cats renders the potential for ground nesting birds to be present as negligible.

Plants

3.6.11 No records of notable or rare plants were provided by the desk study.

Terrestrial Invertebrates

3.6.12 The desk study returned 1560 records of terrestrial invertebrates from within the search area. These records included the S41 butterfly species small heath *Coenonympha pamphilus,* and dingy skipper *Erynnis tages,* with the records centred on a brownfield site 1.5km southwest of the site. Due to previous management as arable cropland, the site presents poor habitat for supporting a rare or notable terrestrial invertebrate assemblage.

3.6.13 Terrestrial invertebrates are not considered further in this report.

Terrestrial Mammals

3.6.14 The Sheffield Biological Records Centre data and WYER search provided three records of hedgehog within the search area, with the most recent located approximately 1 km west of the Site (dead animal

on M1 motorway) in 2020. The Site offers little habitat suitable for preferred foraging, though hedgehogs may make use of the boundaries of the site for navigating the landscape or the base of hedges for hibernating.

Reptiles

3.6.15 The Sheffield Biological Records Centre data and WYER search returned three records of reptiles within the search area. These were all within the same approximate area, 1.4 km west of the Site, recording common lizard *Zootoca vivipara* in 2019.

3.6.16 No suitable habitats for reptiles are considered to be present on Site. The grassland verge and amenity grassland habitats are considered to have negligible potential to support reptile species, as they are regularly and disturbed and lack a tussocky structure. Further, the presence of domestic cats within the Site highly limits the potential for reptiles to be present.

3.6.17

3.7 Invasive Non-Native Species

3.7.1 The data search provided records of several invasive species; Japanese knotweed *Reynoutria japonica*, Himalayan balsam *Impatiens glandulifera,* and *Monbretia* sp.. Records that overlap the Site were recorded to an accuracy of 1 km only and are not considered to be associated with the Site.

3.7.2 A stand of Japanese knotweed was recorded within the boundary hedge at approximately SE 32188 10915 (TN1, Figure 3). This stand appeared to have recently colonised the area and was only 1m^2 in area.

3.8 Baseline Biodiversity

3.8.1 The following baseline biodiversity values were obtained for the Site:

- area-based habitats generated 3.87 Habitat Units (HU);
- hedgerow-based habitats generated 0.82 Hedgerow Units (HeU);

3.8.2 Full results of the Baseline Biodiversity Assessment are provided in Appendix 6.

4. Potential Impacts, Recommendations and Mitigation

4.1.1 Potential impacts of the Development on identified receptors are described in this section. Recommendations for further survey and appropriate mitigation is provided.

4.2 The Proposed Development

4.2.1 The proposed development footprint will result in the loss of arable land, poor modified grassland, poor other neutral grassland (field margin), and impacts to species-poor hedge, and a poor condition hedge with trees. Boundary trees and hedges will be retained.

Habitats

4.2.2 The hedges on Site meet the criteria for those that are listed as Habitats of Principal Importance under the provisions of the NERC Act 2006, and hedgerows are a priority habitat in the Barnsley LBAP. The hedges are however assessed to be in poor ecological condition and are poor examples of the habitats.

4.2.3 There are mature tress associated with the site, notably two oak trees to the south of the site, These trees are to be retained through the development.

4.2.4 Root Protection Areas (RPAs) in line with BS 58378:2021 *Trees and Construction* should be established around retained trees and hedges throughout the construction period.

Bats

4.2.5 All UK bats are European Protected Species (EPS) under the Conservation of Habitats and Species Regulations 2017 (as amended) and several are Species of Principal Importance under the provisions of the Natural Environment and Rural Communities (NERC) Act 2006. Bats are protected against disturbance, killing or injuring and their roosts are protected against obstruction, damage or destruction. National planning policy and legislation information is presented in Appendix 1.

4.2.6 The oak tree at the south-east of the Site has features that may provide opportunities for roosting bats. If the proposals are to affect this tree, such as a crown lift or pruning, a detailed daytime inspection, including aerial inspection, to characterise the potential roosting features, should be carried out by a suitably qualified and licenced ecologist. Subsequent to this a roost emergence surveys may need to be undertaken during the optimum survey period (between May-August). If evidence of roosting bats is identified, and depending on the scope of the works proposed, further survey work may be required. The survey methods will take into account current best practice survey guidelines (Collins, 2016).

4.2.7 A proportion of the new dwellings to be constructed within the developable area of the Site should include the provision of integral boxes for roosting bats. The detail of this would be included in the HMMP.

Nesting birds

4.2.8 All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs.

4.2.9 It is recommended that the removal of any suitable bird nesting habitats (hedges) be carried out between late August and mid-February, which would avoid the bird breeding season and avoid committing an offence. If the removal of any bird nesting habitat has to take place during the bird breeding season, then it is recommended that the habitat is surveyed for active bird nests by a suitably qualified ecologist before the proposed work is carried out. If active bird nests are present, then work would have to be delayed in that area until nesting activity ceases.

4.2.10 Should these checks be carried out during nesting bird season, it is anticipated that significant adverse impacts can be suitable avoided.

4.2.11 The following general recommendations for inclusion within the landscape scheme will enhance the site for nesting and foraging birds. The detail of this would be included in the HMMP:

- The use of native shrubs and trees to provide additional bird nesting habitats on Site. The inclusion of species that are fruit and berry bearing will also provide an additional foraging resource for birds.
- A proportion of the new dwellings to be constructed within the developable area of the Site should include the provision of integral boxes for nesting birds, including terrace boxes for house sparrow, a species that was recorded using the Site.

Other species – hedgehog

4.2.12 Hedgehog is a species of principal importance listed under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act. Hedgehog is also listed as a priority species for Barnsley.

4.2.13 The Site has the potential to support hedgehog, the hedges may offer potential refuge, nesting and hibernation habitat for this species. To prevent any adverse impacts on this species, Reasonable Avoidance Measures (RAMs) should be introduced during construction. These measures should consist of;

- Creating a ramp within any excavations within the Site to allow any animals that fall in to escape.
- Covering any excavations at the end of each shift, and checking inside at the beginning and end of each shift. Should any protected or notable species be found, the advice of a suitably experienced ecologist should be sought.
- Any clearance of ground-layer vegetation to facilitate the Development should be done slowly and carefully with any cleared areas immediately checked for the presence of animals. Should any protected or notable species be found, the advice of a suitably experienced ecologist should be sought.
- Fencing installed as part of the Development should have a 15 x 15 cm gap to allow for hedgerows to move through the Site. Ideally this would allow for hedgehogs to north or south through the Development to access other foraging habitats.

4.2.14 Should these RAMS be adhered to, it is anticipated that significant adverse impacts can be suitably avoided.

Invasive Non-Native Species

4.2.15 A stand of Japanese knotweed is recorded on the northern boundary of the site at SE 32188 10915. It is unclear whether this stand is within the RLB of the site or within the property boundary of the adjoining property.

4.2.16 It is recommended that an invasive species management plans prepared and specialist contractors are engaged as necessary to:

I. Prevent the spread of this species into the wider landscape in line with Schedule 9 of the Wildlife and Countryside Act (1981)

II. remove the potential for the species to be spread into gardens of the proposed development

4.3 Biodiversity Net Gain

4.3.1 Trees and 220 m of hedgerows are to be retained and enhanced as part of the development. 0.33ha

of arable cropland, 1.12ha of modified grassland and 0.17 ha of other neutral grassland will be lost to the development.

4.3.2 As part of the design, 0.49ha of greenspace will be provided (made up of species-rich neutral grassland, and mixed native shrubs). This will be located in the west of the Site, and extending into the southeast of the Site. New sections of hedgerow with trees will be planted to link up existing hedges to the north and south of the Site. Proposed vegetated garden plots will measure 0.2232 ha.

4.3.3 An additional 0.713 ha of the Site will be developed or 'sealed surface' habitats and 0.2496 ha of the Site will be roads. Other habitats include: 0.02ha 'introduced shrubs', and 0.0611ha medium-sized urban trees.

4.3.4 Post-development, the following biodiversity values are predicted for the Site:

- area-based habitats generated 4.39 Habitat Units (HU);
- hedgerow-based habitats generated 0.93 Hedgerow Units (HeU).

4.3.5 This represents a 13.42% net gain in area-based habitats and 13.19% gain in hedgerow based habitats thus meeting the minimum 10% net gain within the development.

4.3.6 These habitats are indicated on Figure 4. The following habitat creation and enhancement measures are proposed in principle within the landscaping plan to enhance the Site for biodiversity gain. It is required that the landscaping within the development uses native shrubs where possible and broadleaf trees including native hedgerow habitat and the use of fruit and berry bearing species. Areas of grassland created will comprise species-rich wildflower areas, which will contribute to the LBAP habitat action plan.

4.3.7 The newly created habitats should be managed for their wildlife interest and a habitat mitigation and management plan (HMMP) should be produced to provide management prescriptions to ensure the favourable management of these habitats.

References

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5. Figures

Figure 1 : Designated Sites within 2 km of the Site

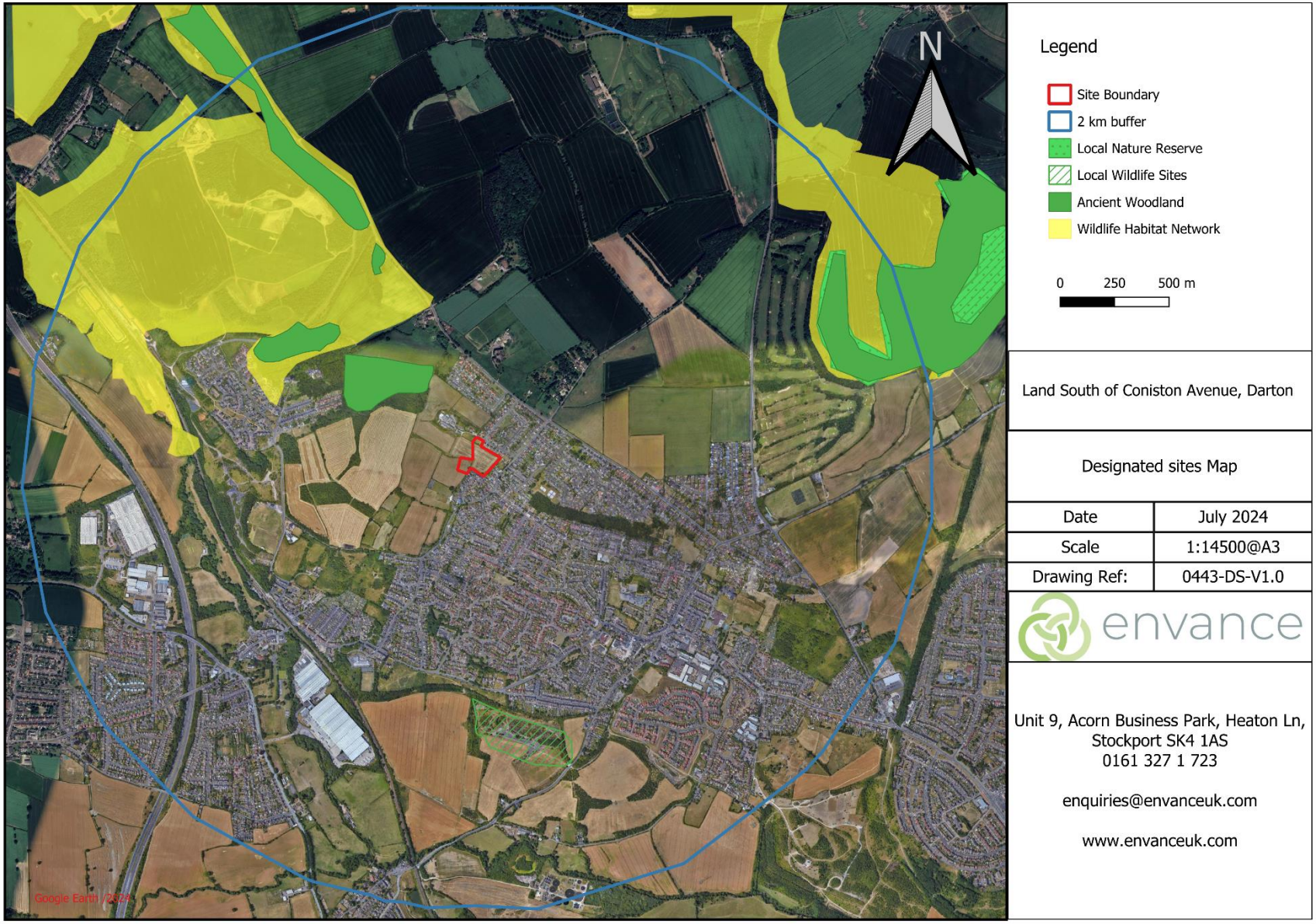
N
Legend
Site Boundary
2 km buffer
Local Nature Reserve
Local Wildlife Sites
Ancient Woodland
Wildlife Habitat Network
0
250
500 m
Land South of Coniston Avenue, Darton
Designated sites Map
Date
July 2024
Scale
1:14500@A3
Drawing Ref:
0443-DS-V1.0
envance
Unit 9, Acorn Business Park, Heaton Ln,
Stockport SK4 1AS
0161 327 1 723
enquiries@envanceuk.com
www.envanceuk.com
Google Earth

Figure 2: Priority Habitats and Watercourses within 2 km of the Site

Land South of Coniston Avenue, Darton

Priority Habitats Map

Date	July 2024
Scale	1:14500@A3
Drawing Ref:	0443-PH-V1.0

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Stockport SK4 1AS
0161 327 1 723

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Figure 3: Habitat Map

Legend

- Red Boundary
- Cereal crops
- Modified grassland
- Other neutral grassland
- Native Hedgerow
- Native Hedgerow with trees
- Trees

0 50 100 150 m

Land South of Coniston Avenue, Darton

Baseline Habitat Map

Date	July 2024
Scale	1:1498@A3
Drawing Ref:	0433-BHM-V1.0

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Figure 4: Post-Development Habitat Map


N
Other neutral grassland to be established within the site
Drainage area seeded with species rich wetland grassland to create other neutral grassland
Development Area +Vegetated garden Area
Existing trees to be retained.
Approx 15 trees to be planted within the site.
Legend
Site Boundary
Built linear features
Developed land; sealed surface
Introduced shrub
Other neutral grassland
Vegetated garden
Native Hedgerow
Native Hedgerow with trees
Retained exsisting trees
Newly Planted trees
0 50 100 150 m
Land South of Coniston Avenue, Darton
Post-Development Habitat Map
Date July 2024
Scale 1:1498@A3
Drawing Ref: 0443-PDHM-V1.0
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0161 327 1 723
enquiries@envanceuk.com
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Appendix 1. Legislation and Policy

Legislation

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) allows for the designation of National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs), to protect areas containing habitats and species of national or international importance.

The 1981 Act also provides for the protection of certain species. These include nesting birds, with additional special protection for birds listed within Schedule 1, as well as a range of other protected animals listed in Schedule 5 (including reptiles, water vole and certain species of invertebrates). A number of protected plant species are also listed within Schedule 8.

The Conservation of Species and Habitats 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) provide domestic implementation of the EU Habitats Directive 1992. Under the Regulations, species listed in Annex II of the Directive are given strict protection in the UK as European protected species and it is an offence intentionally or recklessly to disturb or to harm a European protected species.

Projects which are likely to affect European protected species are subject to assessment criteria. Under Part 5 of the Regulations a licence may be granted for a project affecting a European protected species for specific purposes.

Natural England is the licensing authority for derogation licenses. A derogation licence may only be granted, provided:

- that there is no satisfactory alternative; and
- the action authorised will not be detrimental to the maintenance of the population of a European protected species at a favourable conservation status in its natural range.

All public authorities are required to have regard to the provisions of the Habitats Directive in the exercise of their functions under Regulation 9 of the Habitats Regulations. Guidance on the application of the Habitats Regulations is set out in the Joint ODPM and Department for the Environment, Food and Rural Affairs (DEFRA) circular 06/2005 & 01/2005.

Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 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.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Protection of Badgers Act 1992

Under the Protection of Badgers Act 1992 all badgers and their setts are protected from disturbance. The Act also includes provisions to allow Natural England to grant licences permitting interference with a badger sett in the course of development. Such a licence will normally incorporate conditions to ensure that undue disturbance and suffering to badgers is avoided during the development works.

Hedgerow Regulations 1997

Under the Hedgerow Regulations 1997, provision is made for the notification of "*important*" hedgerows. To

qualify for notification, hedgerows must fulfil a range of criteria relating to their historical, landscape or wildlife character. In accordance with the Regulations, the intention to remove any hedgerow should be notified to the Local Planning Authority (LPA) via a hedgerow removal notice. The LPA may issue a Hedgerow Retention Notice to prevent the loss of an "*important*" hedgerow. Where permission is granted to remove an "*important*" hedgerow, the LPA may impose conditions to mitigate the loss.

Town and Country Planning Act 1990 – Biodiversity Net Gain

Under Schedule 7A of the Town and Country Planning Act 1990 (inserted by Schedule 14 of the Environment Act 2021), grants of planning permission are to be subject to a condition to secure that the biodiversity net gain objective is met. Specifically;

- The biodiversity gain objective is met in relation to development for which planning permission is granted if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the onsite habitat by at least the relevant percentage.
- The biodiversity value attributable to the development is the total of—
    - the post-development biodiversity value of the onsite habitat,
    - the biodiversity value, in relation to the development, of any registered offsite biodiversity gain allocated to the development, and
    - the biodiversity value of any biodiversity credits purchased for the development.
- The relevant percentage is 10%.
- The Secretary of State may by regulations amend this paragraph so as to change the relevant percentage.

The Schedule goes on to emphasise the use of the most recent version of the Statutory Biodiversity Metric, detail from when the baseline biodiversity of a relevant Site should be calculated, how post-development biodiversity values should be calculated, and how off-site biodiversity gains should be registered and calculated.

Policy

National Planning Policy Framework

The National Planning Policy Framework (NPPF, 2023) sets out the Government's planning policies for England and how these are expected to be applied. Section 15 of the NPPF deals with conserving and enhancing the natural environment. Habitats and biodiversity are specifically referenced in paragraphs 179 to 182, as copied below.

179. To protect and enhance biodiversity and geodiversity, plans should:

> a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation;
>
> and
>
> b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

180. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons63 and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

181. The following should be given the same protection as habitats sites:

a) potential Special Protection Areas and possible Special Areas of Conservation;

b) listed or proposed Ramsar sites64; and

c) sites identified, or required, as compensatory measures for adverse effects on

habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

182. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Barnsley Local Plan

5.1.1 The following Local Plan policies are of relevance to ecology and biodiversity.

5.1.2 Policy BIO1 Biodiversity and Geodiversity states: *"Development will be expected to conserve and enhance the biodiversity and geological features of the borough by:*

- *"Protecting and improving habitats, species, sites of ecological value…*
- *"Maximising biodiversity and geodiversity opportunities in and around new developments…*
- *"Proposals will be expected to have followed the national mitigation hierarchy (avoid, mitigate, compensate)…*
- *"Protecting ancient and veteran trees where identified.*
- *"Encouraging provision of biodiversity enhancements."*

5.1.3 This policy is supported by supplementary guidance:

- Policy CC1 Climate Change states: *"We will seek to reduce the causes of and adapt to the*

future impacts of climate change by: …Promoting investment in Green Infrastructure to promote and encourage biodiversity gain".

- Policy GI1: Green Infrastructure states: *"We will protect, maintain, enhance and create an integrated network of connected and multifunctional Green Infrastructure assets that: … Helps to meet the challenge of climate change; Enhances biodiversity and landscape character;… and Secures and improves linkages between green and blue spaces*".

5.1.4 The remainder of the Site is identified as housing allocation and described within Policy HS6: Site south of Coniston Avenue. No specific site policies are stated in relation to this allocation.

LBAP

5.1.5 The Barnsley Biodiversity Action plan lists 23 habitat types that are of local priority, of these 23 only one – hedgerows is recorded within the site.

Appendix 2. Photographs

Legend

Photo 1. Other neutral grassland field margins

Photo 2. Arable cropland south of site

Photo 3. Tilled cropland to west of site

Photo 4. Abandoned cropland to east of site

Appendix 1: Site Photographs

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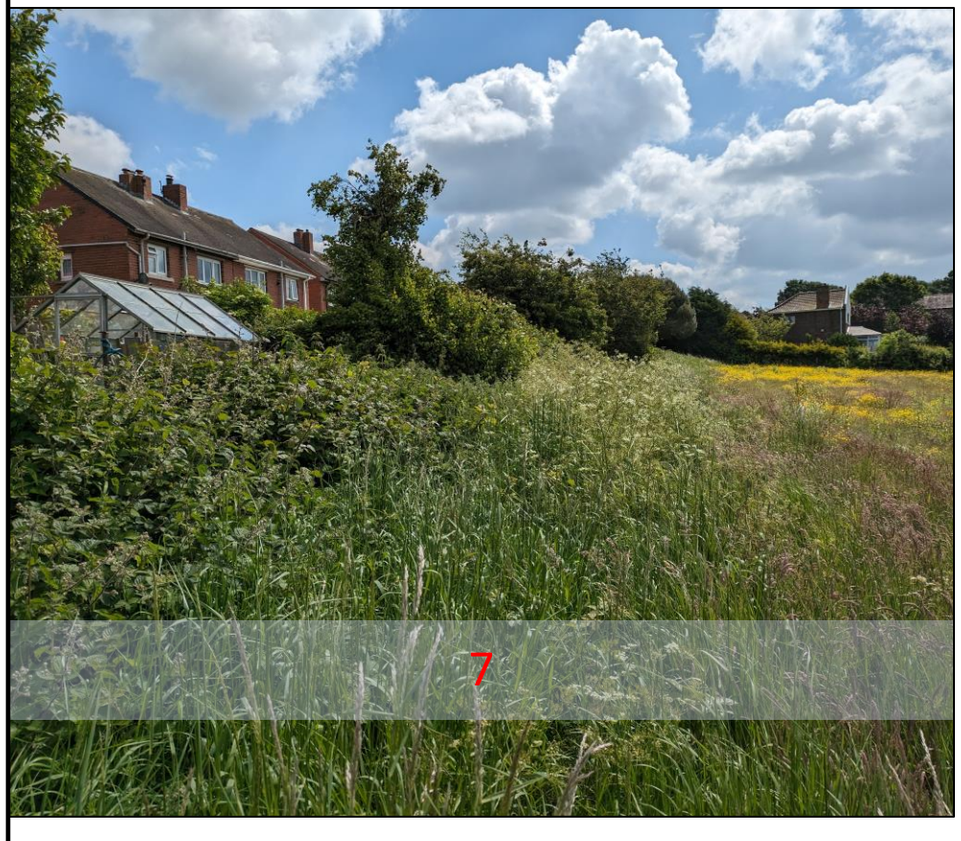
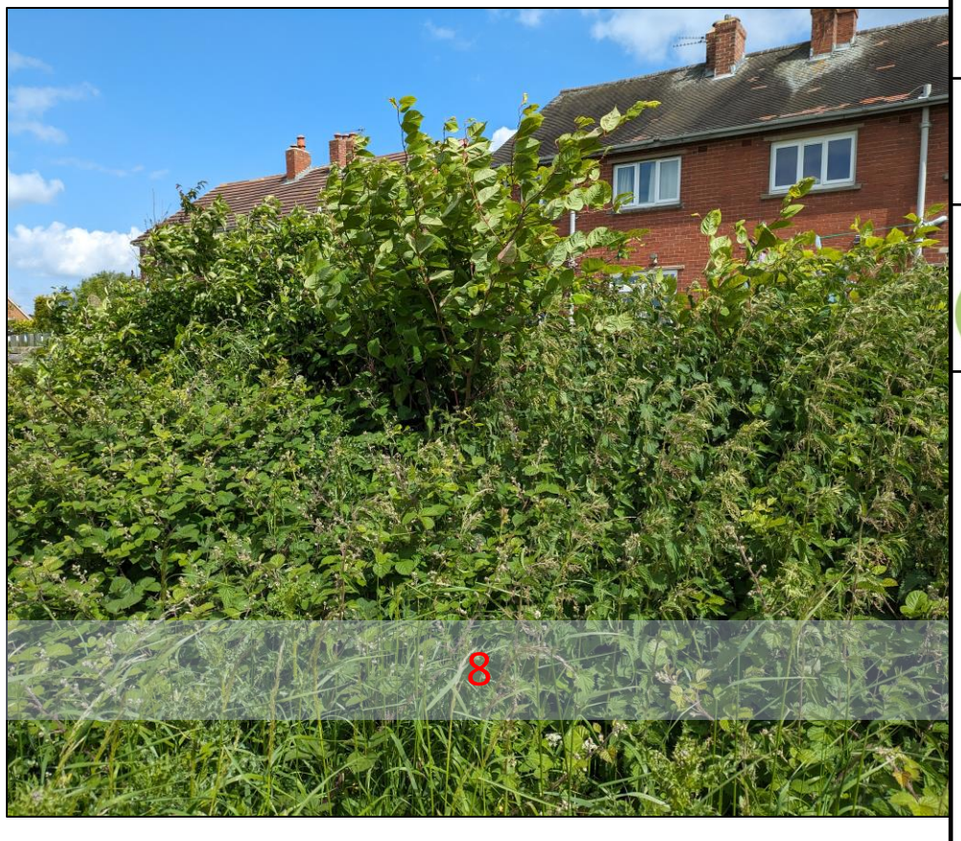
Houldsworth Street
Stockport
SK14 6DS

0161 327 1 723

enquiries@envanceuk.com





Legend

Photo 5. Species poor hedgerow (H1) and modified grassland north of site

Photo 6. Hedgerow (H2) to north of site, connects to Husband Wood

Photo 7. Poor boundary to north of site

Photo 8. Japanese knotweed stand (TN1)

Appendix 1: Site Photographs

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Houldsworth Street
Stockport
SK14 6DS

0161 327 1 723

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Legend

Photo 9. H3 Unmaged hedgerow to east of site

Photo 10. H4 species poor hedgerow section to south of site

Photo 11. H5 species poor hedgerow section to south of site

Photo 12. H6 species poor hedgerow section to south of site

Appendix 1: Site Photographs

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Legend

Photo 13. H7 unmanaged species poor hedgerow to south of site

Photo 14. H8 Native hedgerow to south of site

Photo 15. Large oak to south boundary no PRF recorded.

Photo 16. Large oak to southwest of site with moderate PRF recorded

Appendix 1: Site Photographs

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Stockport
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Appendix 3. Plant Species List

Table 4 - Plant species identified within the Site

Common Name	Scientific Name
Bramble	*Rubus fruticosus agg.*
Broadleaved dock	*Rumex obtusifolius*
Broadleaved plantain	*Plantago major*
Cherry sp.	*Prunus sp.*
Cleavers	*Galium aparine*
Cock's foot	*Dactylis glomerata*
Common bent	*Agrostis capillaris*
Common knapweed	*Centaurea nigra*
Common oat	*Avena sativa*
Common ragwort	*Senecio jacobaea*
Cow parsley	*Anthriscus sylvatica*
Creeping cinquefoil	*Potentilla reptans*
Creeping thistle	*Cirsium repens*
Curled leaf dock	*Rumex crispus*
Dogrose	*Rosa canina*
Elder	*Sambucus nigra*
False oat grass	*Arrhenatherum elatius*
Hard rush	*Juncus inflexus*
Hawthorn	*Crataegus monogyna*
Hogweed	*Heracleum sphondylium*
Holly	*Ilex aquifolium*
Ivy	*Hedera helix*
Japanese Knotweed	*Reynoutria japonica*
Laburnum	*Laburnum anagyroides*
Meadow Buttercup	*Ranunculus acris*
Meadow Vetchling	*Lathyrus pratensis*
Nettle	*Urtica dioica*
Oak sp.	*Quercus sp.*
Perennial rye grass	*Lolium perenne*
Oriental privet	*Ligustrum ovafolium*
Red fescue	*Festuca rubra*
Ribwort plantain	*Plantago lanceolata*
Rosebay willowherb	*Chamerion angustifolium*
Silver birch	*Betula pendula*
Sycamore	*Acer pseudoplatanus*
White clover	*Trifolium repens*
Yorkshire fog	*Holcus lanatus*

Appendix 4. Habitat Condition Assessments

Condition assessment tables for all habitats found during the ecological verification survey are provided below. Where codes for different areas are provided, these can be found on Figure 1.

Modified grassland

Other neutral grassland

Native hedgerows

Native hedgerows with trees

Trees

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
UK Habitat Classification (UKHab) Habitat Type			
Grassland - Modified grassland			
On-site or off-site, site name and location	Coniston Lane, Darston	**Survey date and Surveyor name**	06/06/2024 Stuart Robinson
Limitations (if applicable)	Nil	**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SE 32183 10863	**Habitat parcel reference**	
Habitat Description			
ukhab – UK Habitat Classification			

	Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	No	Poor abundance of species, previously cropped land
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 vertebrates and invertebrates to live and breed.	Pass	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Pass	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Fail	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	Fail	
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Pass	
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Pass	
	Essential criterion achieved (Yes or No)		No
	Number of criteria passed		Four exc. A

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ×/✓	

Passes 6 or 7 criteria including passing essential criterion A	Good (3)		
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)		
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	Poor	

Suggested enhancement interventions to improve condition score

Nil - habitat to be lost

Footnotes

Footnote 1 – Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*.

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
UK Habitat Classification (UKHab) Habitat Type			
Grassland - Modified grassland			
On-site or off-site, site name and location	Coniston Lane, Darston	**Survey date and Surveyor name**	06/06/2024 Stuart Rvbinson
Limitations (if applicable)	Nil	**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SE 32161 10947	**Habitat parcel reference**	
Habitat Description			
ukhab – UK Habitat Classification			

	Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	No	Poor abundance of species, managemnt pressure high
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 vertebrates and invertebrates to live and breed.	Pass	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Pass	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Fail	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	Fail	
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Pass	
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Pass	
	Essential criterion achieved (Yes or No)		No
	Number of criteria passed		Four exc. A

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ×/✓	

Passes 6 or 7 criteria including passing essential criterion A	Good (3)		
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)		
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	Poor	

Suggested enhancement interventions to improve condition score

Nil - habitat to be lost

Footnotes

Footnote 1 – Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*.

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Please see separate Line of trees condition sheet for a line of Rural trees.

Habitat Description

Individual trees (description applied to the urban or rural environment):
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies must overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.

On-site or off-site, site name and location	Coniston Avenue	**Survey date and Surveyor name**	Stuart Robinson 06/06/2024
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)	Nil	**Habitat parcel reference**	T1 / T2 / T3 / T4 / T5
		Grid reference	

	Condition Assessment Criteria	Criterion passed (Yes or No)										Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	y	n	y	y	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	y	y	y	y						
C	The tree is mature (or more than 50% within the block are mature)[1].	n	n	n	y	y						
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.	n	n	n	n	n						
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	n	n	y	y	y						
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	n	y	n	n	n						
	Number of criteria passed	2	2	2	4	4						

Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved ×/✓										
Passes 5 or 6 criteria	Good (3)											
Passes 3 or 4 criteria	Moderate (2)				x	x						

Passes 2 or fewer criteria	Poor (1)	x	x	x								
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.												
Suggested enhancement interventions to improve condition score[2]												

Condition sheet: HEDGEROW Habitat Types

Habitat Type

Native hedgerow
Native hedgerow - associated with bank or ditch
Native hedgerow with trees
Native hedgerow with trees - associated with bank or ditch
Species-rich native hedgerow
Species-rich native hedgerow - associated with bank or ditch
Species-rich native hedgerow with trees
Species-rich native hedgerow with trees - associated with bank or ditch

Habitat Description

Hederows within developemnty site

See the Statutory Biodiversity Metric Technical Annex 2 and UK Habitat Classification:	ukhab – UK Habitat Classification

On-site or off-site, site name and location	Coniston Avenue, Darston	**Survey date and Surveyor name**	Stuart Robinson 06/06/2024
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	

Condition Assessment Details

A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.

This assessment is based on the Hedgerow Survey Handbook[1] and Favourable Conservation Status document[2]. For further clarification please refer to the Hedgerow Survey Handbook.

Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.

Hedgerow favourable condition attributes

Attributes and functional groupings (A, B, C, D and E)	**Criteria - the minimum requirements for 'favourable condition'**	**Criteria description**	**Habitat parcel reference**										
			H1	H2	H3	H4	H5	H6	H7	H8			
			Grid reference										

Core groups - applicable to all hedgerow types				**Criterion passed (Yes or No)**										**Notes (such as justification)**
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	Y	Y	Y	Y	Y	Y	Y	Y			
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn *Prunus spinosa* suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	Y	N	N	N	N	N	N	N			
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	N	N	N	N	N	N	N	N			

B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	Y	N	N	N	N	N	N	N			
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	N	N	N	N	N	N	N	N			
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	N	N	N	N	N	N	N	N			
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA[3]) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website[4], as well as the BSBI website[5] where the 'Online Atlas of the British and Irish Flora'[6] contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website[7].	Y	Y	Y	Y	Y	Y	Y	Y			
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	N	N	N	N	N	N	N	N			
Additional group - applicable to hedgerows with trees only														
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient[8]), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	N	N									
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). 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.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	N	Y									

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees		
Category	**Category Requirements**	**Metric Score**
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3

Moderate	No more than 4 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Condition categories for hedgerows with trees

Category	Category Requirements	Metric score
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2
Poor	Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Suggested enhancement interventions to improve condition score

Appendix 5. Bird Species Recorded within 2 km of Site

Recent records of bird species from within 2 km of the Site. Red = species listed as of 'red' conservation concern within the Birds of Conservation Concern 5 (BOCC5; Stanbury *et al.* 2021). Amber = species listed as of 'amber' conservation concern with the BoCC5. Green = species listed as of 'green' conservation concern within the BoCC5. Sch1 = species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). Sch9 = invasive non-native species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). S41 = species listed as of Principal Importance under Section 41 of the NERC Act 2006.

Table 5 - Bird species recorded within 2 km of the Site

Common Name	Scientific Name	BoCC status	W & C Act 1981	NERC Act 2006
Accipiter nisus	Sparrowhawk	Green		
Aegithalos caudatus	Long-tailed Tit	Green		
Alauda arvensis	Skylark	Red		x
Alcedo atthis	Kingfisher	Amber	Sch. 1	
Anser brachyrhynchus	Pink-footed Goose	Amber		
Anthus pratensis	Meadow Pipit	Amber		
Apus apus	Swift	Amber		
Athene noctua	Little Owl	N/A		
Aythya fuligula	Tufted Duck	Green		
Buteo buteo	Buzzard	Green		
Carduelis cannabina	Linnet	Red		
Carduelis carduelis	Goldfinch	Green		
Carduelis (Chloris) chloris	Greenfinch	Green		
Certhia familiaris	Treecreeper	Green		
Columba oenas	Stock Dove	Amber		
Columba palumbus	Woodpigeon	Green		
Corvus corax	Raven	Green		
Corvus corone	Carrion Crow	Green		
Cyanistes caeruleus	Blue Tit	Green		
Delichon urbicum	House Martin	Amber		
Dendrocopos major	Great Spotted Woodpecker	Green		
Emberiza citrinella	Yellowhammer	Red		x
Emberiza schoeniclus	Reed Bunting	Amber		
Erithacus rubecula	Robin	Green		
Falco subbuteo	Hobby	Green	Sch. 1	
Falco tinnunculus	Kestrel	Amber		
Fringilla coelebs	Chaffinch	Green		
Gallinago gallinago	Snipe	Amber		
Garrulus glandarius	Jay	Green		
Haematopus ostralegus	Oystercatcher	Amber		
Hirundo rustica	Swallow	Green		
Linaria cannabina	Linnet	Red		
Mergus merganser	Goosander	Green		
Milvus milvus	Red Kite	Green	Sch. 1	

Common Name	Scientific Name	BoCC status	W & C Act 1981	NERC Act 2006
Motacilla alba	Pied Wagtail	Green		
Motacilla alba yarrellii	Pied Wagtail	Green		
Motacilla cinerea	Grey Wagtail	Red		
Motacilla flava	Yellow Wagtail	Red		
Parus major	Great Tit	Green		
Passer domesticus	House Sparrow	Red		
Perdix perdix	Grey Partridge	Red		x
Periparus ater	Coal Tit	Green		
Phasianus colchicus	Pheasant	N/A		
Phylloscopus collybita	Chiffchaff	Green		
Phylloscopus trochilus	Willow Warbler	Amber		
Pica pica	Magpie	Green		
Picus viridis	Green Woodpecker	Green		
Poecile montanus	Willow Tit	Red		x
Prunella modularis	Dunnock	Amber		x
Psittacula krameri	Ring-necked Parakeet	N/A		
Pyrrhula pyrrhula	Bullfinch	Amber		
Rallus aquaticus	Water Rail	Green		
Regulus regulus	Goldcrest	Green		
Streptopelia decaocto	Collared Dove	Green		
Sturnus vulgaris	Starling	Red		x
Sylvia atricapilla	Blackcap	Green		
Sylvia borin	Garden Warbler	Green		
Sylvia communis	Whitethroat	Green		
Sylvia curruca	Lesser Whitethroat	Green		
Troglodytes troglodytes	Wren	Green		
Turdus iliacus	Redwing	Red	Sch. 1	
Turdus merula	Blackbird	Green		
Turdus philomelos	Song Thrush	Amber		
Turdus pilaris	Fieldfare	Red	Sch. 1	
Turdus viscivorus	Mistle Thrush	Red		
Vanellus vanellus	Lapwing	Red		x

Appendix 6. Biodiversity Calculations

Methodology

Baseline

The baseline biodiversity assessment used the SBM calculation tool (Natural England, 2023). Habitat measurements were made using digital mapping software (QGIS Geographic Information System version 3.34.3). Habitat condition was assessed according to the criteria outlined by DEFRA (2023). The baseline survey and condition assessment were undertaken in combination with the UKHab classification survey, by Envance ecologists Stuart Robinson on 6th June 2024.

Information derived from the desk study was used to inform the biodiversity calculation in relation to the strategic significance of the Site. Habitats are defined as strategically significant if they achieve one of the following criteria:

- are part of a statutory or non-statutory designated site;
- are listed in the Priority Habitat Inventory;
- are included within river basin management/catchment plans and/or;
- are part of a locally designated wildlife corridor or any other local strategic area.

Habitats failing all these criteria are typically classified as of 'low strategic significance'. However, if they are judged to provide significant ecological connectivity and or value to the local area, they may be assigned an intermediate strategic significance status and be classified as 'ecologically desirable'.

Using the SBM, habitat values are calculated based on whether habitats occur commonly or whether they are rare (habitat distinctiveness), their area (ha) (or length (km) for linear habitats such as hedgerows, rivers and streams), condition, and strategic significance. This gives a pre-development value in Habitat Units (HU), Hedgerow Units (HeU) and/or Watercourse Units (WU).

Biodiversity Net Gain

A biodiversity net gain assessment has been undertaken based on layout plan **2427 - 0301 - P06.dwg**. From this, an indicative net gain value for the Site has been estimated. Recommendations for the management of these habitats and any requirement for off-site compensation are also provided to achieve a net gain in biodiversity value based on this plan, where relevant.

Maximum feasible unit gain, post-development, is based on the most favourable condition considered to be feasible within a 30-year period (the minimum management period recommended by the government with the biodiversity net gain scheme) in the context of the Development and surrounding area. Estimated areas and unit gain for off-site compensation requirements cannot be calculated at this time as this will vary based on the baseline conditions of the off-site location and its locality to the Site (i.e., whether or not it is within the same local authority).

Baseline Survey Results

Habitat Classification

Baseline habitats identified within the survey area are listed below in SBM format.

- Ceral crops – 0.33ha
- Modified grassland – 1.12ha
- Other neutral grassland – 0.16ha

- Rural tree – 0.02ha
- Native hedgerow – 0.25km
- Native hedgerow with trees – 0.08km

Review of historic aerial imagery indicated no degradation of habitats prior to the time of the field survey.

Strategic Significance

All baseline area based habitats have no strategic significance as they are not identified as such within the local plan. Furthermore, they are common and widespread in the wider area with little or no value to nature conservation.
Hedgerows are listed within the Barnsley LBAP as a priority habitat, However, the hedgerows within the site do not qualify as 'notable hedgerows' and are in poor ecological condition.

Baseline Biodiversity Value

Habitat types, their relative conditions and calculated biodiversity value according to the SBM are summarised below in **Table A6.1**. Within the Site, area-based habitats generated 3.87 HU, hedgerow-based habitats generated 0.82 HeU.

Table 6 - Baseline Area-based Habitats, Condition and Unit Scores

Habitat Type	Condition	Strategic Significance	Area (ha)	Habitat Units (HU)
Cereal crops	N/A	Area/compensation not in local strategy/ no local strategy	0.33	0.67
Modified grassland	Poor	Area/compensation not in local strategy/ no local strategy	1.12	2.25
Other neutral grassland	Poor	Area/compensation not in local strategy/ no local strategy	0.16	0.67
Rural tree	Moderate	Area/compensation not in local strategy/ no local strategy	0.01	0.10
Rural tree	Good	Area/compensation not in local strategy/ no local strategy	0.01	0.19

Habitat Type	Condition	Strategic Significance	Area (ha)	Habitat Units (HU)
			Total Habitat Units	**3.87**

Table 7 - Baseline Hedgerow Habitats, Condition and Unit Scores

Habitat Type	Condition	Strategic Significance	Length (km)	Hedgerow Units (HeU)
Native hedgerow	Poor	Area/compensation not in local strategy/ no local strategy	0.25	0.50
Native hedgerow with trees	Poor	Area/compensation not in local strategy/ no local strategy	0.08	0.32
			Total Hedgerow Units	**0.82**

Biodiversity Net Gain

Predicted Impact of the Development

The Development is anticipated to include the total removal of all existing area based habitats on Site, equating to a land-take of approximately 1.65 ha. Approximately two thirds of the hedgerows and all trees will be retained through the development. There will be a loss of 110m of hedgerow, comprising 50m of native hedgerow and 60m of hedgerow with trees. As this is greater than 25 m^2, the Development is not exempt from mandatory biodiversity net gain under the de minimis exception.

Whilst there has been no formal landscaping plan for the Development, current drawings (**Figure 5**) indicate that created habitats will consist of buildings, developed land; sealed surface, and vegetated gardens.

Tables A5.3 and A5.4 detail the predicted post-development habitats (including approximate area and anticipated habitat condition) and their associated biodiversity value. Predicted post-development habitats are visualised in **Figure 4**.

Table 8 - Post-Development Area-based Habitats, Condition and Unit Scores

Habitat Type	Intervention Type	Condition	Strategic Significance	Area (ha)	Habitat Units (HU)
Cereal crops	Loss	-	Low	0.33	- 0.67
Modified grassland	Loss	-	Low	1.12	- 2.25
Other neutral grassland	Loss	-	Low	0.17	- 0.67
Individual trees	Retention	Moderate	Low	0.03	0.19
Developed land; sealed surface	Creation	N/A - Other	Low	0.71	0.00
Built linear features	Creation	N/A - Other	Low	0.24	0.00
Introduced shrub	Creation	Condition Assessment N/A	Low	0.02	0.04

Habitat Type	Intervention Type	Condition	Strategic Significance	Area (ha)	Habitat Units (HU)
Vegetated garden	Creation	Condition Assessment N/A	Low	0.22	0.43
Other neutral grassland	Creation	Good	Low	0.41	3.45
Individual trees	Creation	Moderate	Low	0.06	0.19
				Total Habitat Units	**4.39**

Table 9 - Post-Development Hedgerow Habitats, Condition and Unit Scores

Habitat Type	Intervention Type	Condition	Strategic Significance	Length (km)	Hedgerow Units (HeU)
Native hedgerow	Loss	-	Low	0.05	- 0.10
Native hedgerow with trees	Loss	-	Low	0.06	- 0.24
Native hedgerow with trees	Creation	Moderate	Low	0.08	0.45
Native hedgerow with trees	Retention	Moderate	Low	0.02	0.08
Native hedgerow	Retention	Moderate	Low	0.2	0.40
				Total Hedgerow Units	**0.93**

A biodiversity value of 4.39 HU, and 0.93 HeU is predicted for the Site, post-development. This represents a biodiversity net change of 13.41% for area-based habitats, and 13.19 % for hedgerow-based habitats.

Trading Rules

The SBM includes a feature known as trading rules, which stipulate that there must be no net loss in any one habitat type, in addition to achieving the mandated 10% biodiversity net gain.

The predicted post-development habitats do not result in a net loss of any habitat type. Trading rules for this development are satisfied.

Achieving Biodiversity Net Gain

With the current estimated landscaping layout, a net gain for area-based habitats of 13.42% is predicted for the site, a further gain of 13.19 % for hedgerow-based habitats is also predicted. These predicted gains indicate that the mandatory 10% target can be achieved within the development footprint of the site and no other compensation or mitigation is required.