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Ecological Appraisal

Former St Aidan's Church

November 2025

Mr Jagraj Singh



Client	Mr Jagraj Singh
Project Name	Former St Aidan's Church
Project Number	25476
Report Type	EclA
Version	V1 (Draft)

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Summary

OS Ecology Ltd were commissioned by Mr Jagraj Singh in October 2025 to undertake an Ecological Appraisal of Former St Aidan's. The site is proposed for residential development.

Summary Table	
Habitat Assessment	The majority of the site is a block of other neutral grassland with a pavement running along the western boundary. Overall, the habitats are considered to be of up to local value. A further botanical survey is required during the peak season (May to July) in order to confirm the condition of the grassland habitat for the purpose of biodiversity net gain assessment.
Bats	The grassland on site provides a limited area of foraging habitat for bats. There are no roosting habitats on site for bats. The site is considered to be of low value to bats.
Birds	The site provides some suitable habitat for ground nesting birds within the grassland; however, the site is subject to high levels of disturbance. The grassland may also provide suitable foraging habitat for birds. Overall, the site is considered to be of low value to birds.
Other Protected Species	Hedgehog may be present within the site on occasion. If present, the site is considered to be of low value to this species.
Designated Sites	The site lies within an identified SSSI Impact Risk Zone relating to designated sites in the wider area; however, the nature of the proposal is not identified as a potential impact risk trigger.
Further Survey	Based on the nature of the site a detailed botanical survey is required during the peak season (May to July) in order to confirm the condition of the grassland habitat for the purpose of biodiversity net gain assessment.
Impact Assessment	In the absence of mitigation, the following impacts have been identified: • Loss of grassland habitat of up to local ecological value through site clearance works. • Potential disturbance to bats and nocturnal birds through increased lighting on site. • Loss of low value bat foraging habitat. • Low risk of harm to hedgehog and other small mammals during site works. • Harm and/or disturbance to nesting birds, should works be undertaken in the breeding season (March to August inclusive).
Recommendations	The following avoidance, mitigation and/or compensation measures are recommended:

	• External lighting that may affect the site's suitability for bats will be avoided. If required this will be limited to low level, avoiding use of high intensity security lighting. • Vegetation clearance works will not be undertaken during the nesting bird season (March to August inclusive) unless the site is checked by an appropriately experienced ecologist and nests are confirmed to be absent. • Any excavations left open overnight will have a means of escape for mammals that may become trapped in the form of a ramp at least 300mm in width and angled no greater than 45°. • Landscape planting shall include berry and fruit bearing species to provide increased foraging opportunities in the local area. • Integrated swift boxes will be provided within 50% of residential properties. • Works on site will be undertaken in accordance with a confirmed Biodiversity Net Gain assessment.
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1. Introduction

Site Location

- 1.1 The site is located in South Shields at an approximate central grid reference of NZ 36810 67614. The site location is illustrated within figure 1 in the appendices.

Site Description

- 1.2 The site is small, approximately ~0.18ha in size and comprises grassland patch that lies between residential housing streets.

Objectives of the Study

- 1.3 The objectives of this report are:
- To identify and describe any potential ecological receptors that may be present on site or within an identified zone of influence.
 - To identify and assess whether proposals may impact on the identified receptors.
 - To identify potential mitigation, compensation or enhancement measures if required.
 - To identify and detail further surveys if required.

Development Proposals

- 1.4 The development will comprise the following:
- Residential development

2. Methodology

Scope of Study

- 2.1 The site was surveyed to identify whether the following were present for legislative and planning purposes:
- Habitats of Conservation Value
 - Priority Habitats
 - Protected and Priority Species
- 2.2 A summary of relevant legislation is provided within Appendix 2.
- 2.3 The ecological characteristics of the site were reviewed to identify the scope of the assessment, with the zone of influence determined through professional judgement.
- 2.4 The survey area comprised the “site” defined within figure 2 (Appendix 4). The desktop study included a data search covering the site and a 2km buffer zone while habitats within the local area were reviewed via aerial imagery.
- 2.5 Access permitting, all potential bat roosting sites within the survey area were assessed. Guidance regarding the assessment of the suitability of sites for use by bats is provided within Appendix 1.

Planning Policy

- 2.6 Planning policy relevant to this site, specifically the National Planning Policy Framework and the South Tyneside Core Strategy, can be found within Appendix 2.

Desk Study

- 2.7 Desk study was undertaken to assess the nature of the surrounding habitats and included:
- Assessment of aerial imagery and Ordnance Survey mapping.
 - A search of the MAGIC website¹ for statutorily designated sites for nature conservation, habitat listed within the Priority Habitat Inventory or the Ancient Woodland Inventory and European protected species licensing records within 2km of the survey area.
 - A data search request submitted to the Local Record Centre.

¹ Multi Agency Geographic Information for the Countryside (www.magic.gov.uk)

Field Survey

Habitats/Protected Species

- 2.8 The site was subject to a walk over, during which habitats were assessed in line with the habitat classifications detailed within the UK Habitat Classification User Manual². Definitions of broad habitat types and commonly recorded habitat types are provided within the appendices.
- 2.9 For plant species, abundance has been recorded using the DAFOR scale as detailed in the following table.

Table 2.1: DAFOR Scale		
Abundance		Percentage Cover
D	Dominant	50-100%
A	Abundant	30-50%
F	Frequent	15-30%
O	Occasional	5-15%
R	Rare	<5%

- 2.10 Mandatory Secondary Codes within the UK Habitat Classification have been used as defined within the User Manual.
- 2.11 During the survey the site was checked for evidence of protected species and habitats were assessed for their potential to support such species.
- 2.12 As per the Guidelines provided by the Bat Conservation Trust³, an initial assessment of the suitability of any trees on site for use by roosting bats was undertaken with tree suitability categorised as follows.

Table 2.2: Preliminary Assessment of Tree Suitability for Roosting Bats	
Suitability	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

- 2.13 The potential suitability of any structures within the site for use by roosting bats was also assessed as per the Bat Conservation Trust Guidelines as was the suitability of habitats as potential flightpaths or foraging habitat. Suitability was categorised as 'none', 'negligible', 'low', 'moderate' or 'high' as per Table 4.1 of the guidelines, reproduced within the appendices of this report.

² UKHab Ltd (2023) UK Habitat Classification Version 2.0 (at <http://www.ukhab.org>)

³ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) The Bat Conservation Trust, London

2.14 Survey was undertaken by Mandy Rackham MCIEEM, an experienced surveyor who holds protected species licences for a range of species including bats and great crested newts, and assisted by May Campbell.

2.15 The following equipment was utilised during survey:

- Samsung Tablet
- Garmin etrex 10 GPS

2.16 The survey was undertaken on the 30th October 2025 in the following weather conditions:

Table 2.3: Survey Conditions				
Date	Temperature	Cloud Cover	Precipitation	Wind Conditions
30/10/2025	9°C	25%	Dry	WF0

Limitations to Survey

2.17 Survey was undertaken outside the core botanical survey period (April to September) when some species will not be apparent, and a full assessment of the habitats cannot be completed.

Assessment Methodology

2.18 Guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM) is utilised to provide habitat valuations.

2.19 The level of value of specific ecological receptors is assigned using a geographic frame of reference. For, example international value being most important (SACs, SPAs and pSPAs), then national (SSSIs), regional, county (LWS), district (LNR), local and lastly, within the immediate zone of influence of the site only (low).

2.20 In terms of species, for example breeding birds, should the population within the site constitute greater than 1% of the geographic population, it would be considered significant at that level. In addition, presence of designated sites, scarce species and or quality⁴/diversity of habitats are used to guide that valuation.

2.21 Assessment methods for bats have been undertaken with reference to Wray et al. (2007)⁵, which correlates with the geographic frame of reference. Within which they define the relative rarity of each species based on the known distribution⁶ at the time

⁴ Quality can be subjective and vary in different geographic areas. Reasoned professional judgement is therefore used to inform the assessment.

⁵ Wray et al (2007) Valuing Bats in Ecological Impact Assessment. In Practice. Based on a presentation at the Mammal Society – Specific Issues with Bats

⁶ It should be noted that there are regular changes to our understanding of distribution as further studies are undertaken.

and the value of the roost type, assuming that roosts such as feeding perches are of lower value than maternity roosts or sites that have a high level of fidelity.

- 2.22 Examples of ecological receptors at various levels of value are provided within Appendix 3.

3. Results

Desk Study

General Land Use

- 3.1 A review of aerial imagery and Ordnance Survey mapping highlighted that the general land use in the surrounding area is dominated by residential development to the west and open greenspace and the coast to the east.

Designated Sites

- 3.2 A search of the Multi Agency Geographic Information for the Countryside Website⁷ indicated that the following designated sites for nature conservation lie within 2km of the site.

Table 3.1: Designated Sites Within 2km			
Designation	Site Name	Reason for Designation	Distance from Survey Area (closest point)
Special Area of Conservation	Durham Coast ⁸	The Durham Coast is the only example of vegetated sea cliffs on magnesian limestone exposures in the UK. These cliffs extend along the North Sea coast for over 20 km from South Shields southwards to Blackhall Rocks. Their vegetation is unique in the British Isles and consists of a complex mosaic of paramaritime, mesotrophic and calcicolous grasslands, tall-herb fen, seepage flushes and wind-pruned scrub. Within these habitats rare species of contrasting phytogeographic distributions often grow together forming unusual and species-rich communities of high scientific interest. The communities present on the sea cliffs are largely maintained by natural processes including exposure to sea spray, erosion and slippage of the soft magnesian limestone bedrock and overlying glacial drifts, as well as localised flushing by calcareous water.	~1.71km southeast

⁷ Multi Agency Geographic Information for the Countryside (MAGIC) www.magic.gov.uk (Accessed October 2025)

⁸ <https://sac.jncc.gov.uk/site/UK0030140>

Special Protection Area	Northumbria Coast ⁹	The Northumbria Coast SPA includes much of the coastline between the Tees and Tweed Estuaries. The SPA consists mainly of discrete sections of rocky shore with associated boulder and cobble beaches (providing winter foraging) and includes parts of three artificial pier structures (used throughout the tide cycle) and a small section of sandy beach (for breeding terns). The Northumberland coast and surrounding sea supports important breeding colonies of seabirds and auks, protected at four existing SPAs: Farne Islands SPA, Coquet Island SPA, Lindisfarne SPA and Northumbria Coast SPA. The surrounding waters are protected by Northumberland Marine SPA, these areas are used by the seabirds and auks for foraging and maintenance activities, such as bathing and preening.	~1.72km southeast
National Nature Reserve	None within 2km		
Site of Special Scientific Interest	Northumberland Shore ¹⁰	The Northumberland Shore includes most of the coastline between the Scottish border and the Tyne Estuary. This complements the Lindisfarne SSSI, which it abuts, in providing important wintering grounds for shore birds, and it is of international, or national significance for six species, purple sandpiper, turnstone, sanderling, golden plover, ringed plover and redshank. The Northumberland shore consists largely of sandy bays separated by rocky headlands with wave-cut platforms, backed by dunes or soft and hard cliffs. Discrete areas of estuarine intertidal mudflats and saltmarsh are also included.	~0.90km north
	Durham Coast ¹¹	The Durham Coast between South Shields and Hart Warren is of considerable biological, geological and physiographic interest. It contains most of the paramaritime Magnesian Limestone vegetation in Britain, as well	~0.48km east

⁹

<https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9006131&SiteName=northumbria&countyCode=&responsiblePerson=&SeaArea=&IFCAAarea=>

¹⁰ <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/2000134.pdf>

¹¹ <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1000255.pdf>

		as a species-rich dune system, and supports nationally important numbers of wintering shore birds and breeding little terns which contribute to the internationally important populations of the north-east coast.	
	Tynemouth to Seaton Sluice ¹²	The coast from Tynemouth to Seaton Sluice provides one of the best exposures of Coal Measures strata in Great Britain, showing a continuous lower Westphalian B sequence from the Plessey to the High Main seams. It includes outcrops of numerous coal seams, and several mudstone horizons yielding non-marine bivalve faunas, which together provide a tight stratigraphical control on the sequence. Of particular importance are outcrops of sandstone bodies, which have been interpreted as braided river deposits in marked contrast to the meandering river deposits which dominate the Pennines Coalfields to the south. This implies that the Northumberland Coalfield was formed in a more elevated area relative to the Pennines Coalfield, and was then probably rather further from the sea. The site is thus of considerable importance for interpreting the palaeogeographical structure of Britain during the Middle Carboniferous. This section of the coast supports a significant proportion of the internationally important winter populations of purple sandpiper (over 10%), sanderling (over 10%) and turnstone (over 5%) which occur on the Northumberland coast. In addition there are locally important numbers of knot, ringed plover and golden plover.	~1.77km northeast
SSSI Impact Risk Zone (IRZ) The site lies within an identified SSSI Impact Risk Zone relating to designated sites in the wider area, however development of the nature proposed does not meet the identified impact risk triggers.			
Local Nature Reserve	None within 2km		

¹² <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1001176.pdf>

Ramsar Sites	Northumbria Coast ¹³	The Northumbria Coast Ramsar site comprises several discrete sections of rocky foreshore between Spittal, in the North of Northumberland, and an area just south of Blackhall Rocks in County Durham. These stretches of coast regularly support internationally important numbers of purple sandpiper and turnstone. The Ramsar site also includes an area of sandy beach at Low Newton, which supports a nationally important breeding colony of little tern, and parts of three artificial pier structures which form important roost sites for purple sandpiper. Species occurring at levels of international importance: Over winter the area regularly supports: Purple Sandpiper (<i>Calidris maritima</i>) 787 individuals, representing an average of 1.6% (Eastern Atlantic (wintering)) of the population (5 year peak mean for 1992/93 to 1996/97) and Turnstone (<i>Arenaria interpres</i>) 1739 individuals, representing an average of 2.6% (Western Palearctic (wintering)) of the population (5 year peak mean for 1992/93 to 1996/97). Species occurring at levels of national importance: During the breeding season the area regularly supports: Little tern (<i>Sterna albifrons</i>) 40 pairs, representing an average of 1.7% of (Eastern Atlantic (breeding)) the GB population (5 year mean for 1993 to 1997).	~0.48km east
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Priority Habitats

- 3.3 A search of the MAGIC website identified areas of habitat within 2km of the site identified within the Priority Habitat Inventory as the following habitat types:

¹³ <https://rsis.ramsar.org/RISapp/files/RISrep/GB1019RIS.pdf>

- No main habitat but additional habitat exists
- Open mosaic habitat (draft layer)
- Woodland and Parkland BAP
- Deciduous woodland
- Lowland calcareous grassland
- Mudflats
- Maritime cliffs and slopes
- Coastal sand dunes

3.4 Of the identified areas of habitat, the closest is an area of deciduous woodland and woodpasture and parkland which lie approximately 53m east of the site.

Ancient Woodland

3.5 The MAGIC website did not identify any areas of woodland listed within the Ancient Woodland Inventory within 2km of the site.

European Protected Species Licensing

3.6 The MAGIC website identified the following granted Natural England European Protected Species licenses within 2km of the site¹⁴.

Table 3.2: Granted Natural England European Protected Species Licences within 2km			
Licence Reference	Species	Licensed Work	License Period
2019-40412-EPS-MIT	Common Pipistrelle	Destruction of a resting place	15/04/2019-30/06/2024

Data Search

Local Records Centre

3.7 The following table summarises the data search results from Environmental Records Information Centre North East (ERIC NE). Records were provided for all protected and notable species within 2km of the site, of which key species are listed. The full data search can be provided on request.

Table 3.3: Records from LRC Data Search			
Taxon	Species	No. of Records within Search Area	Records of Particular Note
Amphibians	Common Frog	7	-
	Common Toad	2	-

¹⁴ The dataset is noted as having been last updated in January 2022.

Table 3.3: Records from LRC Data Search			
Taxon	Species	No. of Records within Search Area	Records of Particular Note
	Great Crested Newt	2	-One record from 1964. The other record is from 2022 ~1.56km from site.
	Smooth Newt	2	-
Mammals (excluding bats)	Eastern Grey Squirrel	64	-
	Eurasian Badger	5	-
	Eurasian Otter	4	-
	Eurasian Red Squirrel	6	-
	West European Hedgehog	33	-
Bats	Bat (species unknown)	2	-
	Common Pipistrelle	31	-
	Myotis Bat species	2	-
	Nathusius's Pipistrelle	3	-
	Noctule Bat	2	-
	Pipistrelle sp.	4	-
	Soprano Pipistrelle	2	-
	Whiskered/Brandt's Bat	2	-
Butterflies	Dingy Skipper	4	-
	Small Blue	2	-
	Small Heath	11	-
	Wall	95	-
	White-letter Hairstreak	4	-
Birds	9541 records of bird species were received from ERIC NE. Species of bird included Fieldfare, Kittiwake and Yellowhammer to name a few. A full list is available upon request.		
Reptiles	Red-eared Terrapin	4	-

3.8 The records centre also provided information regarding the following Local Wildlife Sites (LWS) which lie within 2km of the site:

- South Shields Dunes
- The Leas
- Northumberland Park
- Tyne Entrance
- South Marine Park Lake

3.9 The records centre also provided information regarding the following Local Site of Conservation Interest which lie within 2km of the site:

- Chirton Dene Park

Field Survey

Habitats

Table 3.4: Habitat Descriptions

Overview of habitats

The site comprises a block of other neutral grassland with a footpath running along the western boundary.

The habitats within the site are illustrated within Figure 3.

Habitat Description			Habitat Category
Grassland			Primary Code g3c – other neutral grassland
A block of other neutral grassland with a varied sward.			
Species/m²: TBC	Sward Height: Varies from 5cm-50cm	Bare ground (%): 0	
Species List			
Species present include common mallow (<i>Malva sylvestris</i>), common nettle (<i>Urtica dioica</i>), broadleaved doc (<i>Rumex obtusifolius</i>), ribwort plantain (<i>Plantago lanceolata</i>), creeping buttercup (<i>Ranunculus repens</i>), white clover (<i>Trifolium repens</i>), cock's-foot (<i>Dactylis glomerata</i>), couch (<i>Elymus repens</i>), greater willowherb (<i>Epilobium hirsutum</i>), perennial ryegrass (<i>Lolium perenne</i>), rough meadow grass (<i>Poa trivialis</i>), dandelion (<i>Taraxacum</i> agg.), tufted vetch (<i>Vicia cracca</i>), creeping bent (<i>Agrostis stolonifera</i>), hairy tare (<i>Vicia hirsuta</i>), meadow vetchling (<i>Lathyrus pratensis</i>), cranesbill (<i>Geranium</i> sp.), cow parsley (<i>Anthriscus sylvestris</i>), creeping thistle (<i>Cirsium arvense</i>), purple toadflax (<i>Linaria purpurea</i>), Acer sp., spear thistle (<i>Cirsium vulgare</i>), false oat-grass (<i>Arrhenatherum elatius</i>), red fescue (<i>Festuca rubra</i>), dog rose (<i>Rosa canina</i>), rosebay willowherb (<i>Chamaenerion angustifolium</i>), white dead nettle (<i>Lamium album</i>), weld (<i>Reseda luteola</i>), common toadflax (<i>Linaria vulgaris</i>), cleavers (<i>Galium aparine</i>), mugwort (<i>Artemisia vulgaris</i>), Creeping cinquefoil (<i>Potentilla reptans</i>), hogweed (<i>Heracleum sphondylium</i>), ladies bedstraw (<i>Galium verum</i>), rowan (<i>Sorbus aucuparia</i>), ragwort (<i>Jacobaea vulgaris</i>), red valerian (<i>Valeriana rubra</i>), Brassica sp., shepherds purse (<i>Capsella bursa-pastoris</i>), Apple of Peru (<i>Nicandra physalodes</i>), groundsel (<i>Senecio vulgaris</i>), common field-speedwell (<i>Veronica arvensis</i>), annual meadow grass (<i>Poa annua</i>), perennial sow thistle (<i>Sonchus arvensis</i>), knotgrass (<i>Polygonum adiculare</i>).			
Undesirable species present (Y/N): Y		Further Survey Needed (Y/N): Yes for net gain condition assessment	

Habitat Description	Habitat Category
	

Other Habitat Slab pavement running along up the west side of the site.	<i>Primary Code</i> u1b – developed land / sealed surface
	

Protected Species

Bats

- 3.10 The site provides limited habitat suitable for foraging bats due to the small size of the site as well as the absence of trees or hedgerows.

Birds

- 3.11 The site provides some suitable habitat for foraging birds.
- 3.12 Limited habitat for ground nesting birds is present, with the grassland providing a longer sward height in some areas, although the site is subject to high levels of disturbance.

Great Crested Newts

- 3.13 Consultation with Ordnance Survey maps and aerial imagery did not identify any ponds within 250m of the site.
- 3.14 Based on the distance between the site and ponds within the wider area (over 250m) and the lack of local records (the closest record being more than 1.5km from site), this species is considered to be absent from the site and are not considered further in this report.

Other protected/notable species

- 3.15 The priority species hedgehog may be present on the site on occasion.

4. Site Assessment

Assessment of Survey Findings

Habitats

- 4.1 Habitats on site are considered to be of up to local ecological value comprising of a patch of grassland and a hardstanding pavement. The overall value of the grassland will need to be confirmed following a botanical check in the peak flowering season for biodiversity net gain requirements.

Bats

- 4.2 The site is considered to be of low value to bats providing a limited area of foraging habitat. Roosting habitats are considered absent due to a lack of buildings and trees.

Birds

- 4.3 The site provides limited habitat for ground nesting birds, with the absence of scrub and trees meaning only the grassland has the potential to support birds. The site is considered to be of low value to birds.

Other Protected Species

- 4.4 Hedgehog may be present within the site on occasion. If present, the site is considered to be of low value to this species.

Designated Sites

- 4.5 The site lies within an identified SSSI Impact Risk Zone relating to designated sites in the wider area; however, the nature of the proposal is not identified as a potential impact risk trigger.

5. Impact Assessment

5.1 The following impact assessment is based on the survey work to date and the understanding that the Client wishes to undertake the following:

- Residential development with gardens and parking.

5.2 As a result of the assessment completed and the nature of the proposed works, the likely impacts, without appropriate avoidance measures, mitigation and/or compensation scheme, are anticipated to be:

- Loss of grassland habitat of up to local ecological value through site clearance works.
- Potential disturbance to bats and nocturnal birds through increased lighting on site.
- Loss of low value bat foraging habitat.
- Low risk of harm to hedgehog and other small mammals during site works.
- Harm and/or disturbance to nesting birds, should works be undertaken in the breeding season (March to August inclusive).

6. Mitigation and Compensation

Further Survey

- 6.1 Based on the nature of the site a detailed botanical survey is required during the peak season (May to July) in order to confirm the condition of the grassland habitat for the purpose of biodiversity net gain assessment.
- 6.2 No further survey work for bats is required. The site is considered to be of low value to foraging and commuting bats. However, due to the overall small scale of the site nighttime walkover surveys are not considered necessary. In addition, there are no suitable habitats (trees or scrub) within the site within which remote detectors could be deployed.

Avoidance Measures

- 6.3 The following measures should be incorporated into the design of the scheme to avoid impacts on wildlife:
- External lighting that may affect the site's suitability for bats will be avoided. If required this will be limited to low level, avoiding use of high intensity security lighting.

Mitigation Strategy

- 6.4 The following is recommended:
- Works will not be undertaken during the nesting bird season (March to August inclusive) unless the site is checked by an appropriately experienced ecologist and nests are confirmed to be absent.
 - Any excavations left open overnight will have a means of escape for mammals that may become trapped in the form of a ramp at least 300mm in width and angled no greater than 45°.

Compensation Scheme

- 6.5 The following is recommended:
- Landscape planting shall include berry and fruit bearing species to provide increased foraging opportunities in the local area.
 - Integrated swift boxes will be provided within 50% of residential properties¹⁵.

¹⁵ Swift boxes have been shown to have good occupancy rates by a range of urban species of conservation concern including swifts, house sparrows, starlings and tits (<https://cieem.net/swift-bricks-the-universal-nest-brick-by-dick-newell/>)

- Works on site will be undertaken in accordance with a confirmed Biodiversity Net Gain assessment.

Appendix 1 – Bat Suitability and Survey Effort

Classifications of suitability of structures and habitats within the site are based on those provided within the Bat Conservation Trust Good Practice Survey Guidelines¹⁶, as detailed within the extract below, Table 4.1 reproduced from page 44 of the guidelines.

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible ^a	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ^c).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

^a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

^b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

^c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2016 and Jansen *et al.*, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

¹⁶ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) The Bat Conservation Trust, London

The classification of the suitability of structures and habitats relates to the level of further survey likely to be recommended. The following recommendations are extracted from the Bat Conservation Trust Guidelines¹⁷.

Recommended Survey Effort and Timing for Presence/Absence Surveys – To Give Confidence in a Negative Result for Structures			
(also recommended for trees where other methods such as aerial inspection of potential roost features is not possible, however unlikely to give confidence in a negative result due to dynamic nature of tree roosts) (Tables 7.1-7.2 in the BCT Guidelines)			
	Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
Survey Effort	One dusk emergence survey (structures). No further survey required (trees)	Two separate dusk emergence survey visits.	Three separate dusk emergence survey visits.
Timings	May-August (structures) No further survey required (trees)	May to September, with at least one survey between May and August. Multiple survey visits should be spaced at last three weeks apart, preferably more.	May to September with at least two surveys between May and August. Multiple survey visits should be spaced at least three weeks apart, preferably more.
If bats are recorded	If the presence of a bat roost(s) is established, the next stage of the process is to carry out roost characterisation surveys. Additional surveys may be required to obtain sufficient information regarding the nature of the roost to carry out an impact assessment and design an appropriate mitigation, enhancement and mitigation strategy.		
PRF-I – A potential roost feature within a tree suitable for use by individual bats or very small numbers of bats. PRF-M – A potential roost feature within a tree suitable for multiple bats that may therefore be used by a maternity colony.			

Minimum Recommended Number of Repeats for Activity Surveys (Habitats)			
(Tables 8.3 in the BCT Guidelines)			
Survey Type	Low suitability habitat for bats	Moderate suitability habitat for bats	High suitability habitat for bats
Nighttime Bat Walkover Survey	One survey visit per season (spring-April/May, summer – June/July/August, autumn – September/October). Further surveys may be required if these visits or the results of static detector surveys, reveal activity of interest that requires more observation on site.		
Automated/Static Bat Detector Surveys	Data to be collected for a minimum of five consecutive nights per season in appropriate (or the best available) weather conditions for bats.	Data to be collected for a minimum of five consecutive nights per month (April to October) in appropriate (or the best available) weather conditions for bats.	
Note: Multiple survey visits should be separated by at least three weeks, preferably longer, to observe temporal changes in activity.			

¹⁷ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) The Bat Conservation Trust, London

Appendix 2 – Policy and Legislation

Planning Policy

National Planning Policy Framework (NPPF)¹⁸

The revised National Planning Policy Framework sets out the government's planning policies for England and how these are expected to be applied. It provides a framework within which locally prepared plans for housing and other development can be produced. Planning law requires that applications for planning permission be determined in accordance with the development plan. The key paragraphs from the relating to the natural environment are detailed below.

Ecologically Relevant Paragraphs of the NPPF	
Paragraph	Statement
8	Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives): a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure; b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and c) an environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.
187	Planning policies and decisions should contribute to and enhance the natural and local environment by: a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

¹⁸ National Planning Policy Framework December 2024

<https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf>

Ecologically Relevant Paragraphs of the NPPF	
Paragraph	Statement
	c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs; e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate
188	Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
192	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.
193	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;

Ecologically Relevant Paragraphs of the NPPF	
Paragraph	Statement
	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 reasons 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.
194	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 sites; 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.
195	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.

Local Planning Policy

The following table details the ecologically relevant policies of the local plan relevant to this site.

Table 5: Ecologically Relevant Policies of the South Tyneside Core Strategy¹⁹	
Policy No.	Policy
Policy EA3 Biodiversity and Geodiversity	To optimise conditions for wildlife, implement the Durham Biodiversity Action Plan and tackle habitat fragmentation the Council will: A. secure and enhance the integrity of designated sites; B. maintain, enhance, restore and add to biodiversity and geological conservation interests; C. ensure that new development would result in no net loss of biodiversity value of any of the following Priority Habitats: i) magnesian limestone grassland; ii) coastal sand dunes; iii) maritime cliffs and slopes; iv) mudflats; v) rivers and wetlands; vi) species rich neutral grasslands; vii) rocky shores; D. reduce the fragmentation of, improve or extend existing Priority Habitats; E. create new Priority Habitats, especially in the Habitat Creation Zones of: i) Cleadon Hills ii) Downhill; iii) River Don Valley; iv) Wardley Colliery; F. protect and strengthen populations of Priority or other protected species; G. enhance the biodiversity value of wildlife corridors; and H. where appropriate, restrict access and usage in order to conserve an area's biodiversity value.

¹⁹ The South Tyneside Local Plan 2023-2040, January 2024, South Tyneside Council

Government Circular ODPM 06/2005 Biodiversity and Geological Conservation²⁰ (England only)

This Circular provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England.

Part IV - Conservation of Species protected by Law details that the presence of a protected species is a material consideration when considering a development proposal that may result in harm to the species or its habitat and that planning authorities must have regard to species protected under the Habitat Regulations.

It goes on to say that: it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted.

Natural Environment and Rural Communities (NERC) Act 2006^{21 22}

Section 40 – To conserve biodiversity

This section puts a duty on public authorities to conserve biodiversity when undertaking its duties and functions.

Section 41 – Biodiversity list and Action

Requires the Secretary of State to publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity. They must also take such steps as appear to the Secretary of State to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section or promote the taking by others of such steps.

The 2007 lists were superseded by the UK Post-2010 Biodiversity Framework.

UK Priority Habitats (excl. marine habitats)²³	
UK BAP Broad Habitat	UK BAP Priority Habitat
Rivers and Streams	• Rivers
Standing Open Waters and Canals	• Oligotrophic and Dystrophic Lakes • Eutrophic Standing Waters • Ponds • Aquifer Fed Naturally Fluctuating Water Bodies • Mesotrophic Lakes
Arable and Horticultural	• Arable Field Margins

²⁰ODPM Circular 06/2005 Office of the Deputy Prime Minister Eland House, Bressenden Place, London SW1E 5DU
Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System

²¹ <https://www.legislation.gov.uk/ukpga/2006/16/section/40>

²² <https://www.legislation.gov.uk/ukpga/2006/16/section/41>

²³ <http://jncc.defra.gov.uk/page-5706>

UK Priority Habitats (excl. marine habitats)²³	
UK BAP Broad Habitat	UK BAP Priority Habitat
Boundary and Linear Features	Hedgerows
Broadleaved, Mixed and Yew Woodland	- Traditional Orchards - Upland Mixed Ashwoods - Wood-Pasture and Parkland - Wet Woodland - Upland Oakwood - Lowland Mixed Deciduous Woodland - Lowland Beech and Yew Woodland - Upland Birchwoods
Coniferous Woodland	Native Pine Woodlands
Acid Grassland	Lowland Dry Acid Grassland
Calcareous Grassland	- Lowland Calcareous Grassland - Upland Calcareous Grassland
Neutral Grassland	- Lowland Meadows - Upland Hay Meadows
Improved Grassland	Coastal and Floodplain Grazing Marsh
Dwarf Shrub Heath	- Lowland Heathland - Upland Heathland
Fen, Marsh and Swamp	- Upland Flushes, Fens and Swamps - Purple Moor Grass and Rush Pastures - Lowland Fens - Reedbeds
Bogs	- Lowland Raised Bog - Blanket Bog
Montane Habitats	Mountain Heaths and Willow Scrub
Inland Rock	- Inland Rock Outcrop and Scree Habitats - Calaminarian Grasslands - Open Mosaic Habitats on Previously Developed Land - Limestone Pavements
Supralittoral Rock	Maritime Cliff and Slopes
Supralittoral Sediment	- Coastal Vegetated Shingle - Machair - Coastal Sand Dunes

Protected Species Legislation

European Protected Species

European Protected Species (EPS) are species of plants and animals (other than birds) protected by law throughout the European Union. They are listed in Annexes II and IV of the European Habitats Directive and receive full protection under The Conservation of Species and Habitats Regulations 2017 (as amended). This make it an offence to:

- deliberately capture, injure or kill any European Protected Species (EPS)
- deliberately disturb any European Protected Species (EPS);
- damage or destroy a breeding site or place of rest or shelter used by any European Protected Species (EPS).

The Wildlife and Countryside Act 1981 (as amended) adds further protection by making it an offence to intentionally or recklessly²⁴ disturb an EPS while it is occupying a structure or place which it uses for shelter or protection, or to obstruct access to any structure or place the species uses for shelter or protection.

European Protected Species Relevant to the UK			
Animals		Plants	
All bat species	Great Crested Newt	Yellow marsh saxifrage	Creeping marshwort
Large blue butterfly	Otter	Shore dock	Slender naiad
Wild cat	Smooth snake	Killarney fern	Fen Orchid
Dolphins, porpoises and whales (all species)	Sturgeon fish	Early gentian	Floating-leaved water plantain
Dormouse	Natterjack toad	Lady's slipper	
Sand lizard	Pool Frog		
Fisher's Estuarine Moth	Snail, Lesser Whirlpool Ram's-horn		
Marine turtles			

Other Protected Species

Other Protected Species Legislation		
Species	Legislation	Level of Protection
Birds	Wildlife and Countryside Act 1981 (as amended)	Under the Wildlife and Countryside Act (1981) it is an offence if any person: - intentionally kills, injures or takes any wild bird - intentionally takes, damages or destroys the nest of any wild bird whilst that nest is in use of being built; - intentionally takes, damages or destroys eggs of any wild bird; Wild birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are protected from: - intentional or reckless disturbance whilst it is building a nest or is in, on or near a nest containing eggs or young; - disturbance of dependent young

²⁴ Under the Countryside and Rights of Way Act 2000 (CROW Act) extended the protection to cover reckless damage or disturbance

Appendix 3 – UK Habitat Classification

UK Habitat Classification Habitat Definitions (Broad Habitats) ²⁵	
Broad Habitat	Definition
Grassland (g)	Total vegetation cover variable from 25-100% - not on waterlogged soils. Vegetation is >75% herbaceous (grasses, sedges, rushes, ferns and forbs) rather than woody, with halophytic species absent or occasional.
Woodland and Forest (w)	Land with <u>more than 25% cover of trees more than 5m in height</u> . Includes recently felled woodland (but not clear-felled forestry plantations unless re-planted), coppice, coppice-with-standards, lines of trees (but not hedgerows), wet woodland and bog woodland.
Heathland and Shrub (h)	Vegetation with <u>more than 25% cover of dwarf shrub species <1.5metres high or woody species up to 5m high</u> . Includes hedgerows of any height. Excludes lines of trees and scattered scrub (secondary code (s.c.)10).
Wetland (f)	A vegetated habitat that is waterlogged or inundated. Excludes wet woodland (w1d), wet habitats where the water table is always within 40cm of the surface and the soil contains free water for most of the year and seasonally wet habitats, inundated for part of the year but becoming mesic in the summer.
Cropland (c)	Agricultural or horticultural land that has been cultivated or cropped within the current or previous year or left as fallow as part of an active arable rotation. Includes ploughed land, intensive orchards, short rotation coppice and Christmas tree and other tree nurseries.
Urban (u)	Constructed, industrial and other artificial habitats. Includes constructed, industrial and other artificial habitats in rural areas. Excludes other ecosystems within cities, towns and villages including grasslands, woodlands, heathlands, wetlands, rivers, lakes, sparsely vegetated land and urban common land.
Sparsely Vegetated Land (s)	Unvegetated, disturbed (regularly or drastically periodically) or sparsely vegetated habitats (permanently or periodically naturally unvegetated areas) inhabited by stress tolerating vegetation with cover <50%. Includes sparsely vegetated natural or extracted rock or soil surfaces. Includes inland rock, supralittoral rock (sea cliffs) supralittoral sediment (mud, sand and shingle) and coastal habitats (including dunes). Excludes sparsely vegetated constructed surfaces (see u1f).
Rivers and Lakes (r)	Inland surface waters (freshwater ecosystems)
Marine Inlets and Transitional Waters (t)	Intertidal habitats on various substrates and with water of variable salinity between Mean High Water Mark and Mean Low Water Mark around the UK coast. Excludes the sublittoral.

²⁵ UK Hab Ltd (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)

UK Habitat Classification Habitat Definitions (Commonly Recorded Habitat Types) ²⁵	
Habitat Type	Definition
Grassland (g)	
g1c Bracken	Land with bracken <i>Pteridium aquilinum</i> at >95% canopy cover at the height of the growing season. Excludes scattered patches of bracken or patches of bracken <0.04ha which are included in the broad habitat type with which they are associated.
g3c Other Neutral Grassland	Neutral grassland that does not meet the definition of either g3a (Lowland Meadow) or g3b (Upland Hay Meadow) <u>AND</u> that meets at least three of these four criteria: 1) >20% cover of broadleaved herbs and sedges 2) >8 species per m² (including forbs, grasses, sedges and rushes, and excluding bryophytes) 3) >1 grass species that is not generally sown for intensive agricultural production (i.e. Rye-grasses <i>Lolium spp.</i>, Timothy <i>Phleum pratense</i>, Cock's-foot <i>Dactylis glomerata</i>, Meadow fescue <i>Festuca pratensis</i>) is at least abundant 4) Cover of rye-grasses <i>Lolium spp.</i> and white clover <i>Trifolium repens</i>, where present, is <30% Separately from the criteria above, a neutral grassland that meets the criteria for waxcap grassland. Excludes grasslands <2 years old on land formerly cropped.
g4 Modified Grassland	Species poor vegetation (<9 species per m ²) dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye grasses <i>Lolium spp.</i> and white clover <i>trifolium repens</i> . Most broadleaved species present will be associated with high fertility.
Woodland (w)	
w1 Broadleaved and Mixed Woodland	Vegetation dominated by trees that are <u>more than 5m high</u> when mature, which form a distinct although sometimes open canopy with a <u>canopy cover of greater than 25%</u> . Includes stands of both native and non-native broadleaved tree species and Yew <i>Taxus baccata</i> , where the <u>percentage cover of these trees in the stand exceeds 20% of the total cover</u> of the trees present.
w1d Wet Woodland	Wet woodland occurs on poorly drained or seasonally wet soils, usually with Alder <i>alnus glutinosa</i> , birch <i>Betula spp.</i> and willows <i>Salix spp.</i> as the predominant tree species, but sometimes including ash <i>Fraxinus excelsior</i> , oak <i>Quercus spp.</i> , Scots pine, <i>Pinus sylvestris</i> and beech <i>Fagus sylvatica</i> on the drier riparian areas.
w1f Lowland Mixed Deciduous Woodland	Lowland mixed deciduous woodland includes woodland growing on the full range of soil conditions, from very acidic to base-rich. Occurs largely within enclosed landscapes, usually on sites with well defined boundaries, at relatively low altitudes, although altitude is not a defining feature.
w1g Other Broadleaved Woodland	Broadleaved and mixed woodland that does not meet the definitions of w1a-w1f. Includes stands of non-native broadleaved tree species and woodlands of non-native species or Sycamore <i>Acer pseudoplatanus</i> that have developed through recent succession, typically on verges or alongside railway lines.
w1h Other Woodland - Mixed	A mixture of broadleaved and coniferous trees in which neither make up more than 80% of the tree cover.
w2 Coniferous Woodland	Vegetation dominated by trees that are <u>more than 5m high</u> when mature, which form a distinct, although sometimes open canopy which has a <u>cover of greater than 25%</u> . Includes stands of both native and non-native coniferous trees species (with the exception of yew <i>Taxus baccata</i>) where the <u>percentage cover of these trees in the stand exceeds 80% of the total cover</u> of the trees present.
Heathland and Shrub (h)	
h2 Hedgerows	Lines of shrubs that have the base of their leafy canopies <2m in height from the ground, so that the woody linear feature as a whole appears as a 'shrubby' hedgerow, even though some of the woody species in it are capable of growing into trees. Hedges in good condition have the base of their leafy canopies <0.5m from the ground.

UK Habitat Classification Habitat Definitions (Commonly Recorded Habitat Types)²⁵	
Habitat Type	Definition
	Includes any bank, wall, ditch, tree or herbaceous vegetation that is <2m from the hedgerow centre. Includes gaps between trees and shrubs that are <20m. Includes tall lines of connected shrubs that remain in a management cycle and allowed to grow tall before being laid. Excludes shrubby components that are >5m wide at the base and woody linear features comprising trees without a shrub layer. Excludes habitat features of trees that are collectively >5m wide at the base.
h2a Native Hedgerow (Priority Habitat)	A hedgerow with >80% canopy cover of UK native or archaeophyte woody species.
h2a5 Species-rich Native Hedgerow	Native hedgerows with 5 or more (or 4 or more in northern and eastern England, upland Wales and Scotland) UK native or archaeophyte woody species in a 30m section.
h2a6 Other Native Hedgerow	Native hedgerows with 4 or less (or 3 or less in northern and eastern England, upland Wales and Scotland) UK native or archaeophyte woody species in a 30m section.
h2b Non-native and Ornamental Hedgerow	A hedgerow with >20% canopy cover of UK non-native woody species. Includes ornamental beech hedgerows and garden varieties or ornamental native species.
h3 Dense Scrub	Patches of shrubs less than 5 metres tall with continuous (>75%) cover. Includes patches with occasional trees more than 5 metres tall and tree species less than 5m tall.
Wetland (f)	
f2e Reedbeds	Wetlands that are dominated by >5m wide stands of the Common Reed <i>Phragmites australis</i> and where the water table is at or above ground level for most of the year.
Cropland (c)	
c1a Arable Field Margins	Herbaceous strips or blocks around arable fields that are managed specifically to provide benefits for wildlife. The arable field must be in a crop rotation that includes an arable crop, even if in certain years the field is in temporary grass, set-aside or fallow. Usually sited on the outer 2-12m margin of the arable field.
c1c Cereal Crops	Crops in the cereal group of domesticated grasses: wheat, barley, oats and maize.
c1d Non-Cereal Crops	Crops other than those defined in c1c.
Urban (u)	
u1b Developed Land - Sealed Surface	Soil surface sealed with impervious materials as a result of urban development and infrastructure construction.
u1b5 Buildings	A relatively permanent enclosed construction over a plot of land, having a roof and usually windows and often more than one level, used for any of a wide variety of activity, as living, entertaining or manufacturing.
u1c Artificial Unvegetated - Unsealed Surface	Land that has no or very low (<10% cover of vegetation through direct or indirect human activity and the soil surface is not sealed with impervious materials.
u1d Suburban/Mosaic of Developed and Natural Surface	Small-scale mosaic of developed and natural surfaces, as in housing and gardens in suburban areas.
u1e Built Linear Features	Roads, railways, walls, fences, surfaced paths.
Rivers and Lakes (r)	
r1 Standing Open Water and Canals	Natural systems such as lakes, meres and pools, as well as human-made waters such as reservoirs, canals, drainage ditches, ponds and gravel pits.
r2 Rivers and Streams	Rivers and streams from bank top to bank top. Where there are no distinctive banks or banks are never overtopped, it includes the extent of the mean annual floor. Includes, the open channel, water fringe vegetation and exposed sediments and shingle banks.

Appendix 4 - Receptor Valuation

The importance of ecological features is considered within a defined geographic context, examples of which are provided within the table below. The valuation of features is a complex process and, in many cases, requires the application of expert judgement. Valuation considers a range of factors including statutory designations, national biodiversity lists, biodiversity action plan lists and lists of declining, rare or legally protected species. Other factors to be considered include the 'naturalness' of habitats, the functional importance of features and whether habitats are irreplaceable.

Examples of Importance of Ecological Features (Geographic Context)²⁶			
Importance	Designated Site	Habitat	Species
International and European	Special Protection Area/Proposed Special Protection Area Special Area of Conservation/Proposed Special Area of Conservation Ramsar Site	A significant area of a Priority Habitat listed on Annex 1 of the Habitats Directive or a smaller area of such habitat that is thought to be functionally linked to a significant area of such habitat	An area that is functionally important to a species listed on Annexes II, IV or V of the Habitats Directive or Annex I of the Birds Directive which is present in internationally significant numbers (>1% of the biogeographic population)
National	Site of Special Scientific Interest	A significant area of a Priority Habitat listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities Act 2006 or a smaller area of such habitat that is thought to be functionally linked to a significant area of such habitat	An area that is functionally important to a species listed as a species of principal importance under Section 41 of the Natural Environment and Rural Communities Act 2006, which is present in nationally significant numbers (>1% of the national population)
Regional	-	An area of a Priority Habitat listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities Act 2006 which is not significant enough in extent to be considered of national importance but is considered to be of greater than metropolitan or county value.	An area that is functionally important to a species which is present in regionally significant numbers (>1% of the regional population)
Metropolitan area or County	Local Wildlife Site designated at a metropolitan area or county level	A significant area of a Priority Habitat listed within the relevant local Biodiversity Action Plan or a smaller area	An area that is functionally important to a species listed as a Priority Species within the relevant local Biodiversity

²⁶ Based on information provided within Guidelines for Ecological Impact Assessment in the UK and Ireland (2018) CIEEM

Examples of Importance of Ecological Features (Geographic Context)²⁶			
Importance	Designated Site	Habitat	Species
Local (District/ Borough of Parish)	Local Wildlife Site designated at a district or borough level	of such habitat that is thought to be functionally linked to a significant area of such habitat	Action Plan, which is present in significant numbers within the geographic context.
Low	-	Habitats that are unexceptional in a local context and do not meet the above criteria.	Species populations that are unexceptional in a local context and do not meet the above criteria.

Appendix 5 – Figures





