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# Preliminary Ecological Appraisal

Jack Lawson Terrace, Wheatley Hill

February 2024

Gleeson Regeneration Ltd

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# Summary

OS Ecology Ltd were commissioned by Gleeson Regeneration Ltd in June 2023 to undertake an Ecological Appraisal of land at Jack Lawson Terrace, Wheatley Hill. The site is proposed for residential development.

<b>Summary Table</b>	
<b>Habitat Assessment</b>	Habitats on site are considered to be of low significance given the diversity of the grassland and the species present within. The trees on site are not considered to be of significant value given their lack of structure and limited species diversity.
<b>Bats</b>	<p>The site is considered to be of no more than local significance based on the lack of suitable roosting opportunities across the majority of the site however there are potentially roosting opportunities within a tree located to the east of the site should this be removed as part of the works.</p> <p>There are limited foraging areas within and around the site due to its location within a residential area. The site has the potential to provide some limited linkages between adjacent residential areas where roosts may be situated to areas of better quality habitat.</p>
<b>Birds</b>	The site provides limited opportunities for nesting birds with the trees supporting limited diversity and structure to support significant nesting opportunities. Due to the nature of the grassland there are considered to be limited opportunities for ground nesting species as the recreational pressure reduces the sward to a limited height meaning that species such as skylark are unlikely to use the area. The proximity of the site to residential areas is also likely to limited usages by ground nesting species due to the likely presence of dog walkers.
<b>Great crested newts</b>	There are no ponds within the site and none within 500m of the development area. The site comprises largely short mown grassland with occasional trees. The grassland is unlikely to provide any substantial refugia given its regular mowing. No evidence of amphibians was recorded on site at the time of the survey.
<b>Badger</b>	No evidence of badger was recorded on site with no setts, trails or latrines recorded on site. The habitats present provide some suitable foraging habitat, however the proximity of the site to adjacent residential development reduces the potential for badger to use the site.
<b>Other Protected Species</b>	<p>No evidence of other protected species was recorded on site. There is a low risk of reptiles being present however given the homogeneity of the grassland on site the presence of reptiles is considered to be low.</p> <p>The grassland on site may support hedgehog in small numbers within adjacent gardens however no evidence of their presence was recorded on site.</p>

	Priority butterfly species such as dingy skipper may be present on site at times given the presence of the larval food plant, birds foot trefoil.
<b>Designated Sites</b>	The site is within the impact risk zone for local Sites of Special Scientific Interest (SSSIs) however the trigger thresholds for impacts on these sites as a result of the nature of the development, are for 100 residential units. As such unless the scheme comprises the development of more than 100 units there are not considered to be any impacts from the scheme on any statutorily designated sites.
<b>Impact Assessment</b>	<ul style="list-style-type: none"> <li>• The loss of areas of grassland of local value for their diversity.</li> <li>• The loss of habitats used by locally common bat species for foraging and commuting</li> <li>• Causing harm to mammals during construction work, including badger and hedgehog.</li> <li>• Causing the loss of habitat with the potential to be used by hedgehog.</li> <li>• Causing harm to nesting birds and their dependant young during site clearance.</li> <li>• Causing a net loss in biodiversity.</li> <li>• The loss of habitat with the potential to be used by priority butterfly species.</li> <li>• Causing the spread of non-native invasive species.</li> </ul>
<b>Recommendations</b>	<ul style="list-style-type: none"> <li>• Street 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.</li> <li>• 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.</li> <li>• 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°.</li> <li>• Works impacting on stands of Cotoneaster will be completed under a method statement.</li> <li>• Where possible, it is recommended that site design minimises impacts to grassland areas where they are to be retained and are protected from disturbance where retained.</li> <li>• Retained trees and hedgerow around the site boundaries will be protected from damage in line with the recommendations in BS5837:2012.</li> <li>• Where possible, landscape planting shall include berry and fruit bearing species to provide increased foraging opportunities in the local area.</li> <li>• Where possible. areas of the site where greenspace is to be created are designed for wildlife and managed appropriately.</li> </ul>

	<ul style="list-style-type: none"><li>• Integrated swift and integrated bat boxes will be provided within 10% of residential properties<sup>1</sup>.</li></ul>
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<sup>1</sup> 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/>)

# 1. Introduction

## Site Location

1.1 The site is located at Jack Lawson Terrace, Wheatley Hill, County Durham, at an approximate central grid reference of NZ 37395 38711. The site location is illustrated within figure 1 in the appendices.

## Site Description

1.2 The site comprises two parcels of land within an existing residential area, totalling approximately 2.65ha in size and comprising areas of amenity grassland with scattered trees.

## 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 with associated infrastructure



## 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 County Durham Local Plan, 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 website<sup>2</sup> 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.

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<sup>2</sup> Multi Agency Geographic Information for the Countryside ([www.magic.gov.uk](http://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 Manual<sup>3</sup>. 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.

	<b>Abundance</b>	<b>Percentage Cover</b>
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 Survey was undertaken by James Streets CEcol MCIEEM, an experienced surveyor who holds protected species licences for a range of species including bats and great crested newts.
- 2.13 The following equipment was utilised during survey:
- Zeiss 8x30 binoculars.
  - Digital camera.

- 2.14 The survey was undertaken on the 12<sup>th</sup> July 2023 in the following weather conditions:

<b>Date</b>	<b>Temperature</b>	<b>Cloud Cover</b>	<b>Precipitation</b>	<b>Wind Conditions</b>
12 <sup>th</sup> July 2023	18°C	100%	Light rain	F1-2

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<sup>3</sup> Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). The UK Habitat Classification User Manual Version 1.1 at <http://www.ukhab.org/>

### Limitations to Survey

2.15 There were considered to be no major constraints to survey.

### Assessment Methodology

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

2.17 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).

2.18 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 quality<sup>4</sup>/diversity of habitats are used to guide that valuation

2.19 Assessment methods for bats have been undertaken with reference to Wray et al. (2007)<sup>5</sup>, which correlates with the geographic frame of reference. Within which they define the relative rarity of each species based on the known distribution<sup>6</sup> at the time and the value of the roost type, assuming that roosts such as feeding perches are of lower value that maternity roosts or sites that have a high level of fidelity.

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

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

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

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

### 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 areas of Wheatley Hill with open countryside beyond, approximately 150m distant.
- 3.2 No areas of standing water are apparent within 500m of the site boundary.

##### Designated Sites

- 3.3 A search of the Multi Agency Geographic Information for the Countryside Website<sup>7</sup> indicated that the following designated sites for nature conservation lie within 2km of the site.

<b>Designation</b>	<b>Site Name</b>	<b>Reason for Designation</b>	<b>Distance from Survey Area (Closest point)</b>
Special Area of Conservation	None within 2km.		
Special Protection Area	None within 2km.		
National Nature Reserve	None within 2km.		
Site of Special Scientific Interest	The Bottoms <sup>8</sup>	The interest at The Bottoms consists of unimproved Magnesian Limestone grassland on the slopes of the dry valley near Old Thornley. Due to the limited distribution of Magnesian Limestone nationally, grasslands on this substrate are naturally scarce and have been further fragmented due to agricultural intensification and quarrying activities. Of the variety of grassland communities which occur on the Magnesian Limestone those characterised by blue moor-grass <i>Sesleria caerulea</i> with	1.1km

<sup>7</sup> Multi Agency Geographic Information for the Countryside (MAGIC) [www.magic.gov.uk](http://www.magic.gov.uk) (Accessed August 2023)

<sup>8</sup> <https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s2000340>

**Table 3.1: Designated Sites Within 2km**

Designation	Site Name	Reason for Designation	Distance from Survey Area (Closest point)
		small scabious <i>Scabiosa columbaria</i> are the most notable and are completely restricted to County Durham. The grasslands at The Bottoms are typical of this type	
	Wingate Quarry <sup>9</sup>	Wingate Quarry was worked for Magnesian Limestone between the mid-18th century and the mid 1930's and is one of the largest and most varied examples of magnesian limestone grassland in County Durham. This grassland type is now nationally scarce due to agricultural land improvements and quarrying activities, with only an estimated 272 ha. remaining in Britain – 179 ha. of this occurring in Durham and Tyne and Wear. This site supports a large number of plant species characteristic of limestone soils, several of which are uncommon in County Durham.	0.9km
	Town Kelloe Bank <sup>10</sup>	Town Kelloe Bank contains one of the most extensive areas of primary Magnesian Limestone grassland in Britain. Whilst a variety of aspects are represented, the main communities occur on steep northerly slopes, and are characterised by blue moor grass <i>Sesleria albicans</i> together with quaking grass <i>Briza media</i> , glaucous sedge <i>Carex flacca</i> , meadow oat-grass <i>Avenula pratensis</i> , salad burnet <i>Sanguisorba minor</i> , rock-rose <i>Helianthemum nummularium</i> and fragrant orchid <i>Gymnadenia conopsea</i> . In flushed areas purple moor grass <i>Molinia caerulea</i> is locally dominant. Of particular note is the occurrence of the largest population of bird's-eye primrose <i>Primula farinosa</i> known in County Durham. Other local limestone plants with a northern distribution are butterwort <i>Pinguicula vulgaris</i> , lesser club	1.6km

<sup>9</sup> <https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002959>

<sup>10</sup> <https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001238>

<b>Table 3.1: Designated Sites Within 2km</b>			
<b>Designation</b>	<b>Site Name</b>	<b>Reason for Designation</b>	<b>Distance from Survey Area (Closest point)</b>
		moss <i>Selaginella selaginoides</i> and grass of Parnassus <i>Parnassia palustris</i> . Maidenhair spleenwort <i>Asplenium trichomanes</i> and an unusual inland population of sea plantain <i>Plantago maritima</i> occur in crevices in small outcrops of Magnesian Limestone	
SSSI Impact Risk Zone (IRZ)			
Part of the site lies within an identified SSSI Impact Risk Zone relating to designated sites in the wider area with residential development of 100 units or more identified as an impact risk trigger.			
Local Nature Reserve	Gore Burn <sup>11</sup>	Unknown	0.3km
	Wingate Quarry <sup>12</sup>	Magnesium limestone grassland and wildflowers.	0.9km

### Priority Habitats

3.4 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:

- Lowland Calcareous Grassland
- Lowland Meadow
- Lowland Heath
- Deciduous Woodland

3.5 Of the identified areas of habitat, the closest is an area of Deciduous Woodland which lies 280m to the southeast of the site.

### Ancient Woodland

3.6 The MAGIC website identified the following areas of woodland listed within the Ancient Woodland Inventory within 2km of the site:

- Long Wood – approximately 1km to the west of the site

<sup>11</sup> <https://designatedsites.naturalengland.org.uk/SitelNRDetail.aspx?SiteCode=L1481517>

<sup>12</sup> <https://designatedsites.naturalengland.org.uk/SitelNRDetail.aspx?SiteCode=L1009246>

## European Protected Species Licensing

3.7 The MAGIC website identified the following granted Natural England European Protected Species licenses within 2km of the site<sup>13</sup>.

Licence Reference	Species	Licensed Work	Licence Period
2014-3987- EPS-MIT	Common Pipistrelle	Destruction of a resting place.	2014-2016

## Data Search

### Local Records Centre

3.8 The following table summarises the data search results from the Environmental Records Information Centre (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.

Taxon	Species	No. of Records within Search Area	Records of Particular Note
Amphibians	Common Frog	3	-
	Common Toad	3	
	Great Crested Newt	24	
	Palmate Newt	1	
	Smooth Newt	3	
Terrestrial Mammals	Bats	2	Records of water vole from Wheatley Hill (though none more recent than 2006).  Records of common pipistrelle, hedgehog and badger from Wheatley Hill.
	Brown Hare	1	
	Common Pipistrelle	4	
	Eurasian Badger	7	
	Eurasian Red Squirrel	1	
	European Rabbit	7	
	European Water Vole	22	
	Pipistrelle Bat species	1	
West European Hedgehog	17		
Birds	Over 3,600 records of 133 bird species were provided; full data can be provided on request.		
Butterflies	Castle Eden Argus	3	
	Dark Green Fritillary	4	

<sup>13</sup> The dataset is noted as having been last updated in January 2022.

<b>Table 3.3: Records from LRC Data Search</b>			
<b>Taxon</b>	<b>Species</b>	<b>No. of Records within Search Area</b>	<b>Records of Particular Note</b>
	Dingy Skipper	187	Records of small heath, dingy skipper and wall from Wheatley Hill.
	Northern Brown Argus	25	
	Small Heath	824	
	Wall	241	
	White-letter Hairstreak	33	
Reptiles	Common Lizard	2	-



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



- Haswell Wood Shotton
- The Bottoms
- Thornley Dene
- Kelloe Plantation



## Field Survey

### Habitats



<b>Table 3.4: Habitat Descriptions</b>		
<b>Overview of habitats</b>		
<p>The site comprises an area of amenity grassland which has a number of amenity trees across it.</p> <p>The habitats within the site are illustrated within Figure 3.</p>		
<b>Habitat Description</b>		<b>Habitat Category</b>
<b>Grassland</b> The grassland is closely mown and comprise a range of locally common species. It is used for amenity purposes.		Primary Code G3c
Species/m <sup>2</sup> :	Sward Height:	Bare ground (%):
<b>Species List</b> White Clover <i>Trifolium repens</i> , Greater Plantain <i>Plantago major</i> , Dandelion <i>Taraxacum officinale</i> , Common Mouse Ear <i>Cerastium fontanum</i> , Selfheal <i>Prunella vulgaris</i> , Perennial Ryegrass <i>Lolium perenne subsp. perenne</i> , Sweet Vernal Grass <i>Anthoxanthum odoratum</i> , Daisy <i>Bellis perennis</i> , Creeping Buttercup <i>Ranunculus repens</i> , Ragwort <i>Senecio jacobaea</i> , Black Medick <i>Medicago lupulina</i> , Broad leaved Dock <i>Rumex obtusifolius</i> , Pineappleweed <i>Matricaria discoidea</i> , Red Clover <i>Trifolium pratense</i> , Shepherd's Purse <i>Capsella bursa-pastoris</i> , Yarrow <i>Achillea millefolium</i> , Birds foot Trefoil <i>Lotus corniculatus</i> ,		Secondary Code  10
Schedule 9/Undesirable species present (Y/N): No other than small areas of Cotoneaster at site boundaries.		Further Survey Needed (Y/N): No
		
<b>Trees</b> Across the site area, there are a number amenity trees with a large, mature ash located along the eastern site boundary.		Primary Code Urban Trees
Number of Age Classes present: 2/3		Veteran Trees Present (Y/N): No
		Secondary Code

Deadwood Present (Y/N): No	Evidence of Disturbance <sup>14</sup> (Y/N): Yes	N/A
<b>Species List</b> Common Hornbeam <i>Carpinus betulus</i> , Whitebeam <i>Sorbus aria</i> agg., Wild Cherry <i>Prunus avium</i> , Field Maple <i>Acer campestre</i> , Norway Maple <i>Acer platanoides</i> , Silver Birch <i>Betula pendula</i> , Ash <i>Fraxinus excelsior</i> .		
Schedule 9/Undesirable species present (Y/N): No	Further Survey Needed (Y/N): No	
		

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<sup>14</sup> e.g. significant nutrient enrichment, soil compaction from trampling, machinery or animal poaching, litter

Target Notes

<b>Table 3.5: Target Notes</b>	
<p><b>Target Note 1</b></p> <p>A large, mature ash tree to the eastern boundary which is considered to have a moderate suitability for supporting roosting bats</p>	
<p><b>Target Note 2</b></p> <p>A small stand of cotoneaster on the site boundary.</p>	

Protected Species

*Bats*

- 3.10 No evidence of bats was recorded on site. There are largely no suitable roosting locations within the site with no structures within the site boundary suitable for supporting roosting bats. A single ash tree located to the eastern site boundary provides some potential opportunities for bats with a moderate suitability recorded.
- 3.11 The habitats within the site comprise limited opportunities for bats, however the trees across the site may provide foraging opportunities for locally common species such as pipistrelles.

### *Birds*

3.12 The site provides limited opportunities for nesting birds, with the grassland unlikely to be used by nesting birds due to the length of the grassland and the disturbance of the site by dog walkers and recreational use of the area. The trees may provide opportunities for nesting birds however none were recorded during the site visit.

### *Great Crested Newts*

3.13 There are no ponds within the site and none within 500m of the development area. The site comprises largely short mown grassland with occasional trees. The grassland is unlikely to provide any substantial refugia given its regular mowing. No evidence of amphibians was recorded on site at the time of the survey.

### *Badger*

3.14 No evidence of badger was recorded on site with no setts, trails or latrines recorded on site. The habitats present provide some suitable foraging habitat, however the proximity of the site to adjacent residential development reduces the potential for badger to use the site.

### *Other protected and notable species*

3.15 No evidence of other protected species was recorded on site. There is a low risk of reptiles being present however given the homogeneity of the grassland on site the presence of reptiles is considered to be low.

3.16 The grassland on site may support hedgehog in small numbers within adjacent gardens however no evidence of their presence was recorded on site.

Priority butterfly species such as dingy skipper may be present on site at times given the presence of the larval food plant, birds foot trefoil.

## 4. Site Assessment

### Assessment of Survey Findings

#### Habitats

- 4.1 Habitats on site are considered to be of low significance given the diversity of the grassland and the species present within. The trees on site are not considered to be of significant value given their lack of structure and limited species diversity.

#### Bats

- 4.2 The site is considered to be of no more than local significance based on the lack of suitable roosting opportunities across the majority of the site however there are potentially roosting opportunities within a tree located to the east of the site should this be removed as part of the works.
- 4.3 There are limited foraging areas within and around the site due to its location within a residential area. The site has the potential to provide some limited linkages between adjacent residential areas where roosts may be situated to areas of better quality habitat. No further survey work is proposed.

#### Birds

- 4.4 The site provides limited opportunities for nesting birds with the trees supporting limited diversity and structure to support significant nesting opportunities. Due to the nature of the grassland there are considered to be limited opportunities for ground nesting species as the recreational pressure reduces the sward to a limited height meaning that species such as skylark are unlikely to use the area. The proximity of the site to residential areas is also likely to limited usages by ground nesting species due to the likely presence of dog walkers. No further survey work is proposed.

#### Badger

- 4.5 No evidence of badger was recorded on site. The grassland areas provide some suitable foraging habitat however there are no optimal sett creation opportunities on site and the proximity of the site to residential development is likely to rule out the presence of such features. The value of the site to badgers is considered to be low. No further survey work is proposed.

#### Great Crested Newts

- 4.6 The site is considered to be of limited value to great crested newts due to the absence of ponds within 500m of the development area and the lack of substantial areas of refugia within the development area. Overall the value of the site to great crested newts is considered to be low. No further survey work is proposed.

### Other Protected and Notable Species

- 4.7 Due to the nature of the site the presence of other protected species is considered to be unlikely. There are limited opportunities for reptiles with no obvious basking areas or refugia present although the hedgerow may provide some opportunities. The value of the site to reptiles is considered to be negligible.
- 4.8 The site may provide habitat for hedgehog however the areas of grassland and woodland, as well as gardens within the local area is likely to provide better opportunities for the species. Overall the value of the site is considered to be low for this species.
- 4.9 The grassland may provide areas of suitable habitat for priority butterfly species including dingy skipper and grayling however given its disturbed nature as a result of recreational use and limited areas of bare ground, the value for these species is considered to be of no more than local significance.
- 4.10 No further survey work for these species is proposed.

## 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 develop the site for residential use.
- 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:
- The loss of areas of grassland of local value for their diversity.
  - The loss of habitats used by locally common bat species for foraging and commuting
  - Causing harm to mammals during construction work, including badger and hedgehog.
  - Causing the loss of habitat with the potential to be used by hedgehog.
  - Causing harm to nesting birds and their dependant young during site clearance.
  - Causing a net loss in biodiversity.
  - Causing the spread of non-native invasive species.

### Designated Sites

- 5.3 The site is within the impact risk zone for local Sites of Special Scientific Interest (SSSIs) however the trigger thresholds for impacts on these sites as a result of the nature of the development, are for 100 residential units. As such unless the scheme comprises the development of more than 100 units there are not considered to be any impacts from the scheme on any statutorily designated sites.
- 5.4 There are no local wildlife sites in close proximity to the scheme and as such it is considered that there will be no impacts on these sites from the development.

## 6. Recommendations

6.1 The completion of site design is required for a detailed avoidance, mitigation and compensation strategy to be developed, however the following initial recommendations can be made.

### Further Survey

6.2 Due to the nature of the site it is considered that additional surveys are not required should site design accommodate species such as bats and butterflies in its design.

### 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.
- 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°.
- Works impacting on stands of Cotoneaster will be completed under a method statement.

### Mitigation Strategy

6.4 The following is recommended:

- Where possible, it is recommended that site design minimises impacts to grassland areas where they are to be retained and are protected from disturbance where retained.
- Retained trees and hedgerow around the site boundaries will be protected from damage in line with the recommendations in BS5837:2012.

### Compensation Scheme

6.5 The following is recommended:

- Where possible, landscape planting shall include berry and fruit bearing species to provide increased foraging opportunities in the local area.
- Where possible, areas of grassland retained and enhanced where possible in order to address the grassland lost from the site.



- Areas of the site where greenspace is to be created are designed for wildlife and managed appropriately where this is possible.
- Integrated swift and integrated bat boxes will be provided within 10% of residential properties<sup>15</sup>.

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<sup>15</sup> 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/>)

# Appendix 1 – Bat Suitability and Survey Effort

Classifications of suitability are based on those provided within the Bat Conservation Trust Good Practice Survey Guidelines<sup>16</sup>, with the table below taken from page 35 of the guidelines (table 4.1).

<b>Guidelines for Assessing the Potential Suitability of Proposed Development Sites for Bats</b> (based on the presence of habitat features within the landscape, to be applied using professional judgement)		
<b>Suitability</b>	<b>Description</b>	
	<b>Roosting Habitats</b>	<b>Commuting and foraging habitats</b>
Negligible	Negligible habitat features on site, likely to be used by roosting bats	Negligible habitat features on site, likely to be used by commuting and foraging bats
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically.</p> <p>However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions<sup>a</sup> 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 or hibernation<sup>b</sup>).</p> <p>A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential<sup>c</sup>.</p>	<p>Habitat that could be used by small numbers of commuting bats such as gappy hedgerow or unvegetated stream, but isolated, i.e not very well connected to the surrounding landscape by other habitat.</p> <p>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.</p>
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions <sup>a</sup> and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>
High	A structure or tree 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 <sup>a</sup> and surrounding habitat	<p>Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>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 watercourse and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p>
<p><i>a. For example in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.</i></p> <p><i>b. 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., 2015). This phenomenon requires some research in the UK but ecologists should be aware of potential for larger numbers of this species to be present during the autumn and winter in larger buildings in highly urbanised environments.</i></p> <p><i>c. The system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015)</i></p>		

<sup>16</sup> Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> Edition). Bat Conservation Trust

The classification of the suitability relates to the level of further survey recommended.

<b>Survey Effort and Timing Depending on Suitability of the Structure or Tree</b> (Tables 7.1-7.3 in the BCT Guidelines)			
	<b>Low roost suitability</b>	<b>Moderate suitability</b>	<b>High roost suitability</b>
<b>Survey Effort</b>	One survey visit  One dusk emergence or dawn re-entry survey	Two separate visits  One dusk emergence and a separate dawn re-entry survey	Three separate visits  At least one dusk emergence and a separate dawn re-entry survey. The third can be either dusk or dawn.
<b>Timings</b>	May-August (structures) No further survey (trees)	May to September. At least one must be in the optimum period (May to August)	May to September. two must be in the optimum period (May to August)
<b>If bats are recorded</b>	If bats emerge from or enter a building during surveys, the survey schedule will be adjusted to increase the survey effort so that enough information can be collected to characterise the roost and provide data should a Natural England Licence be required.		

# Appendix 2 – Policy and Legislation

## Planning Policy

### National Planning Policy Framework (NPPF)<sup>17</sup>

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.

<b>Ecologically Relevant Paragraphs of the NPPF</b>	
<b>Paragraph</b>	<b>Statement</b>
8	<p>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):</p> <ul style="list-style-type: none"> <li>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;</li> <li>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</li> <li>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</li> </ul>
174	<p>Planning policies and decisions should contribute to and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> <li>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);</li> <li>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;</li> <li>c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;</li> <li>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;</li> </ul>

<sup>17</sup> National Planning Policy Framework July 2021  
([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1005759/NPPF\\_July\\_2021.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf))

<b>Ecologically Relevant Paragraphs of the NPPF</b>	
<b>Paragraph</b>	<b>Statement</b>
	<p>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</p> <p>f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate</p>
175	<p>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</p>
179	<p>To protect and enhance biodiversity and geodiversity, plans should:</p> <p>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</p> <p>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.</p>
180	<p>When determining planning applications, local planning authorities should apply the following principles:</p> <p>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;</p> <p>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;</p> <p>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<sup>63</sup> and a suitable compensation strategy exists; and</p> <p>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.</p>
181	<p>The following should be given the same protection as habitats sites:</p> <p>a) potential Special Protection Areas and possible Special Areas of Conservation;</p> <p>b) listed or proposed Ramsar sites<sup>64</sup>; and</p> <p>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</p>

<b>Ecologically Relevant Paragraphs of the NPPF</b>	
<b>Paragraph</b>	<b>Statement</b>
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.

### Local Planning Policy

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

<b>Ecologically Relevant Policies of the County Durham Plan<sup>18</sup></b>	
<b>Policy No.</b>	<b>Policy</b>
Policy 40	<p><b>Trees, Woodlands and Hedges</b></p> <p>Proposals for new development will not be permitted that would result in the loss of, or damage to, trees of high landscape, amenity or biodiversity value unless the benefits of the proposal clearly outweigh the harm. Where development would involve the loss of ancient or veteran trees it will be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists.</p> <p>Proposals for new development will be expected to retain existing trees where they can make a positive contribution to the locality or to the development, maintain adequate stand-off distances between them and new land-uses, including root protection areas where necessary, to avoid future conflicts, and integrate them fully into the design having regard to their future management requirements and growth potential.</p> <p>Where trees are lost, suitable replacement planting, including appropriate provision for maintenance and management, will be required within the site or the locality.</p> <p>Where applications are made to carry out works to trees in Conservation Areas or that are covered by a Tree Preservation Order, they will be determined in accordance with the council's Tree Management Policy Document (or any subsequent revisions).</p> <p>Proposals for new development will not be permitted that would result in the loss of, or damage to, woodland unless the benefits of the proposal clearly outweigh the impact and suitable replacement woodland planting, either within or beyond the site boundary, can be undertaken.</p> <p>Proposals for new development resulting in the loss or deterioration of ancient woodlands as shown on the policies map, will be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists. Proposals affecting ancient woodland (including planted ancient woodland sites) not previously identified as such, will be subject to the same considerations.</p> <p>Proposals for new development will be expected to maintain adequate stand-off distances between woodland and new land-uses to avoid future conflicts, and integrate them fully into the design having regard to their future management requirements and growth potential.</p> <p>Proposals for new development will not be permitted that would result in the loss of hedges of high landscape, heritage, amenity or biodiversity value unless the benefits of the proposal clearly outweigh the harm.</p>

<sup>18</sup> County Durham Plan, Adopted 2020, Durham County Council

<b>Ecologically Relevant Policies of the County Durham Plan<sup>18</sup></b>	
<b>Policy No.</b>	<b>Policy</b>
	<p>Proposals for new development will be expected to retain existing hedgerows where appropriate and integrate them fully into the design having regard to their management requirements.</p> <p>Where any hedges are lost, suitable replacement planting or restoration of existing hedges, will be required within the site or the locality, including appropriate provision for maintenance and management.</p>
Policy 41	<p><b>Biodiversity and Geodiversity</b></p> <p>Proposals for new development will not be permitted if significant harm to biodiversity or geodiversity resulting from the development cannot be avoided, or appropriately mitigated, or, as a last resort, compensated for.</p> <p>Proposals for new development will be expected to minimise impacts on biodiversity by retaining and enhancing existing biodiversity assets and features and providing net gains for biodiversity including by establishing coherent ecological networks(152) . Measures should be appropriate, consistent with the biodiversity of the site and contribute to the resilience and coherence of local ecological networks.</p> <p>Proposals for new development will be expected to protect geological features and have regard to Geodiversity Action Plans, the Durham Geodiversity Audit and where appropriate promote public access, appreciation and interpretation of geodiversity.</p> <p>Development proposals where the primary objective is to conserve or enhance biodiversity or geodiversity will be permitted, where they accord with other relevant policies in the Plan.</p> <p>Development proposals which are likely to result in the loss or deterioration of irreplaceable habitat(s) (such as peatlands or lowland fen) will not be permitted unless there are wholly exceptional reasons and a suitable compensation strategy exists.</p>
Policy 42	<p><b>Internationally Designated Sites</b></p> <p>Development that has the potential to have an effect on internationally designated site(s), (including all development within 0.4 kilometres of the sites, as shown on Map B of the policies map document), either individually or in combination with other plans or projects, will need to be screened in the first instance to determine whether significant effects on the site are likely and, if so, will be subject to an Appropriate Assessment.</p> <p>Development will be refused where it cannot be ascertained, following Appropriate Assessment, that there would be no adverse effects on the integrity of the site, unless the proposal is able to pass the further statutory tests of 'no alternatives' and 'imperative reasons of overriding public interest' as set out in Regulation 64 of the Conservation of Habitats and Species Regulations 2017. In these exceptional circumstances, where these tests are met, appropriate compensation will be required in accordance with Regulation 68.</p> <p>Where development proposals would be likely to lead to an increase in recreational pressure upon internationally designated sites, a Habitats Regulations screening assessment and, where necessary, a full Appropriate Assessment will need to be undertaken to demonstrate that a proposal will not adversely affect the integrity of the site. In determining whether a plan or project will have an adverse effect on the integrity of a site, the implementation of identified strategic measures to counteract effects, can be considered during the Appropriate Assessment.</p> <p>Land identified and/or managed as part of any mitigation or compensation measures should be maintained in perpetuity. Development proposals which have an adverse impact on mitigation or compensation measures will not be allowed.</p>
Policy 43	<b>Protected Species and Nationally and Locally Protected Sites</b>

<b>Ecologically Relevant Policies of the County Durham Plan<sup>18</sup></b>	
<b>Policy No.</b>	<b>Policy</b>
	<p>All development proposals in, or which are likely to adversely impact upon (either individually or in combination with other developments), any of the following national designations (where not a component of an internationally designated site):</p> <ul style="list-style-type: none"> <li>• Sites of Special Scientific Interest</li> <li>• National Nature Reserves</li> </ul> <p>will only be permitted where the benefits of development in that location clearly outweigh the impacts on the interest features on the site and any wider impacts on the network of sites.</p> <p>All development proposals in, or which are likely to adversely impact upon, any of the following local designations:</p> <ul style="list-style-type: none"> <li>• Local Sites (Geology and Wildlife)</li> <li>• Local Nature Reserves (LNRs)</li> </ul> <p>will only be permitted when it can be demonstrated that the benefits of development in that location outweigh the impacts on the local nature conservation interest or scientific interest on the site and any wider impacts on the network of sites.</p> <p>In all cases where development impacts adversely on a designated site, mitigation, or as a last resort compensation, must be provided and it must be demonstrated that the proposed mitigation or compensatory measures are appropriate to the designations assigned to the site and deliver clear net gains for the habitats and/or species assemblages the site is designated for.</p> <p>In relation to protected species and their habitats, all development which, alone or in combination, has a likely adverse impact on the ability of species to survive, reproduce and maintain or expand their current distribution will not be permitted unless:</p> <p>a. appropriate mitigation, or as a last resort compensation, can be provided, which maintains a viable population and where possible provides opportunities for the population to expand; and</p> <p>b. where the species is a European protected species, the proposal also meets the licensing criteria (the 3 legal tests) of overriding public interest, no satisfactory alternative and favourable conservation status.</p>

Government Circular ODPM 06/2005 Biodiversity and Geological Conservation<sup>19</sup> (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*

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<sup>19</sup>ODPM 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



*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<sup>20 21</sup>

*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.

<b>UK Priority Habitats (excl. marine habitats)<sup>22</sup></b>	
<b>UK BAP Broad Habitat</b>	<b>UK BAP Priority Habitat</b>
Rivers and Streams	<ul style="list-style-type: none"> <li>• Rivers</li> </ul>
Standing Open Waters and Canals	<ul style="list-style-type: none"> <li>• Oligotrophic and Dystrophic Lakes</li> <li>• Eutrophic Standing Waters</li> <li>• Ponds</li> <li>• Aquifer Fed Naturally Fluctuating Water Bodies</li> <li>• Mesotrophic Lakes</li> </ul>
Arable and Horticultural	<ul style="list-style-type: none"> <li>• Arable Field Margins</li> </ul>
Boundary and Linear Features	<ul style="list-style-type: none"> <li>• Hedgerows</li> </ul>
Broadleaved, Mixed and Yew Woodland	<ul style="list-style-type: none"> <li>• Traditional Orchards</li> <li>• Upland Mixed Ashwoods</li> <li>• Wood-Pasture and Parkland</li> <li>• Wet Woodland</li> <li>• Upland Oakwood</li> <li>• Lowland Mixed Deciduous Woodland</li> <li>• Lowland Beech and Yew Woodland</li> <li>• Upland Birchwoods</li> </ul>
Coniferous Woodland	<ul style="list-style-type: none"> <li>• Native Pine Woodlands</li> </ul>
Acid Grassland	<ul style="list-style-type: none"> <li>• Lowland Dry Acid Grassland</li> </ul>
Calcareous Grassland	<ul style="list-style-type: none"> <li>• Lowland Calcareous Grassland</li> <li>• Upland Calcareous Grassland</li> </ul>
Neutral Grassland	<ul style="list-style-type: none"> <li>• Lowland Meadows</li> <li>• Upland Hay Meadows</li> </ul>

<sup>20</sup> <https://www.legislation.gov.uk/ukpga/2006/16/section/40>

<sup>21</sup> <https://www.legislation.gov.uk/ukpga/2006/16/section/41>

<sup>22</sup> <http://jncc.defra.gov.uk/page-5706>

<b>UK Priority Habitats (excl. marine habitats)<sup>22</sup></b>	
<b>UK BAP Broad Habitat</b>	<b>UK BAP Priority Habitat</b>
Improved Grassland	<ul style="list-style-type: none"> <li>Coastal and Floodplain Grazing Marsh</li> </ul>
Dwarf Shrub Heath	<ul style="list-style-type: none"> <li>Lowland Heathland</li> <li>Upland Heathland</li> </ul>
Fen, Marsh and Swamp	<ul style="list-style-type: none"> <li>Upland Flushes, Fens and Swamps</li> <li>Purple Moor Grass and Rush Pastures</li> <li>Lowland Fens</li> <li>Reedbeds</li> </ul>
Bogs	<ul style="list-style-type: none"> <li>Lowland Raised Bog</li> <li>Blanket Bog</li> </ul>
Montane Habitats	<ul style="list-style-type: none"> <li>Mountain Heaths and Willow Scrub</li> </ul>
Inland Rock	<ul style="list-style-type: none"> <li>Inland Rock Outcrop and Scree Habitats</li> <li>Calaminarian Grasslands</li> <li>Open Mosaic Habitats on Previously Developed Land</li> <li>Limestone Pavements</li> </ul>
Supralittoral Rock	<ul style="list-style-type: none"> <li>Maritime Cliff and Slopes</li> </ul>
Supralittoral Sediment	<ul style="list-style-type: none"> <li>Coastal Vegetated Shingle</li> <li>Machair</li> <li>Coastal Sand Dunes</li> </ul>

### **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 recklessly<sup>23</sup> 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.

<b>European Protected Species Relevant to the UK</b>			
<b>Animals</b>		<b>Plants</b>	
All bat species	Great Crested Newt	Yellow saxifrage	marsh Creeping marshwort

<sup>23</sup> Under the Countryside and Rights of Way Act 2000 (CROW Act) extended the protection to cover reckless damage or disturbance

<b>European Protected Species Relevant to the UK</b>			
<b>Animals</b>		<b>Plants</b>	
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

<b>Other Protected Species Legislation</b>		
<b>Species</b>	<b>Legislation</b>	<b>Level of Protection</b>
<b>Birds</b>	Wildlife and Countryside Act 1981 (as amended)	<p>Under the Wildlife and Countryside Act (1981) it is an offence if any person:</p> <ul style="list-style-type: none"> <li>intentionally kills, injures or takes any wild bird</li> <li>intentionally takes, damages or destroys the nest of any wild bird whilst that nest is in use or being built;</li> <li>intentionally takes, damages or destroys eggs of any wild bird;</li> </ul> <p>Wild birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are protected from:</p> <ul style="list-style-type: none"> <li>intentional or reckless disturbance whilst it is building a nest or is in, on or near a nest containing eggs or young;</li> <li>disturbance of dependent young</li> </ul>
<b>Badger</b>	Protection of Badgers Act 1992  Wild Mammals (Protection) Act 1996	<p>The Protection of Badgers Act (1992) makes it an offence to wilfully or attempt to:</p> <ul style="list-style-type: none"> <li>kill or injure a badger</li> <li>possesses a dead badger or any part of, or anything derived from a dead badger;</li> <li>digs for badgers;</li> <li>damages a badger sett or any part of it;</li> <li>destroys a badger sett</li> <li>obstructs access to, or any entrance of, a badger sett;</li> <li>causes a dog to enter a badger sett;</li> <li>disturbs a badger whilst it is occupying a badger sett.</li> </ul> <p>Under the Wild Mammals (Protection) Act, badgers are protected from unnecessary suffering by a number of methods.</p>
<b>Slow-worm Adder Grass Snake</b>	Wildlife and Countryside Act 1981 (as amended)	<p>Under the Wildlife and Countryside Act (1981) it is an offence if any person:</p> <ul style="list-style-type: none"> <li>intentionally kill or injures these slow-worms, adders, grass snakes or common lizards</li> </ul>

<b>Other Protected Species Legislation</b>		
<b>Species</b>	<b>Legislation</b>	<b>Level of Protection</b>
<b>Common Lizard</b>		<ul style="list-style-type: none"><li>• sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead slow-worm, adder, grass snake or common lizard or any part of, or anything derived from, such an animal</li></ul>

## Appendix 3 – UK Habitat Classification

UK Habitat Classification Habitat Definitions (Broad Habitats) <sup>24</sup>	
Broad Habitat	Definition
Grassland (g)	Vegetation, not on waterlogged soils, with <u>more than 75% cover of herbaceous species</u> (grasses, sedges, rushes, herbs, forbs) with halophytic species absent or occasional.  Includes pasture and semi-natural grasslands not on waterlogged soils and vegetation dominated by bracken.
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 &lt;1.5metres high or woody species up to 5m high</u> . Includes hedgerows of any height. Excludes lines of trees (w1g6), scattered scrub (secondary code (s.c.)10) and young trees (s.c. 56, 57).
Wetland (f)	Any habitat that is waterlogged (water table at surface with standing water for between 50% and 70% of the year). Excludes wet woodland/carr (w1d), wet habitats where the water table is always within 40cm of the surface and soil containing 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)	Regularly or recently cultivated agricultural, horticultural and domestic habitats. Includes ploughed land and intensive orchards.
Urban (u)	Constructed, industrial and other artificial habitats. Includes constructed, industrial and other artificial habitats in rural areas. Excludes grasslands, woodlands, heathlands, wetlands, rivers, lakes and sparsely vegetated land in urban areas.
Sparsely Vegetated Land (s)	Unvegetated, disturbed (regularly or drastically periodically) or sparsely vegetated habitats (permanently or periodically natural unvegetated areas) inhabited by stress tolerating vegetation. Includes inland rock, supralittoral rock, supralittoral sediment and coastal habitats (including dunes).
Rivers and Lakes (r)	Inland surface waters (freshwater ecosystems)
Marine Inlets and Transitional Waters (t)	Pelagic habitats: low/reduced salinity water (of lagoons), variable salinity water (of coastal wetlands, estuaries and other transitional waters) and marine salinity water (of other inlets). Benthic habitats: littoral rock and biogenic reed, littoral sediment, shallow sublittoral rock and biogenic reef and shallow sublittoral sediment.

<sup>24</sup> The UK Habitat Classification, Habitat Definitions Version 1.1, UKHab, September 2020

<b>UK Habitat Classification Habitat Definitions (Commonly Recorded Habitat Types)<sup>24</sup></b>	
<b>Habitat Type</b>	<b>Definition</b>
<b>Grassland (g)</b>	
g1c Bracken	Land with bracken <i>Pteridium aquilinum</i> at >95% canopy cover at the height of the growing season. Excludes patches of bracken <0.04ha which are included in the broad habitat type with which they are associated (s.c. 12)
g3c Other Neutral Grassland	Neutral grassland that does not meet the definition of either g3a (Lowland Meadow) or g3b (Upland Hay Meadow). Perennial rye-grass <i>Lolium perenne</i> is likely to be present at <30% with between 9 and 15 further species (/m <sup>2</sup> ) also present.
g4 Modified Grassland	Vegetation dominated by a few fast-growing grasses on fertile, neutral soils. Frequently characterised by an abundance of rye-grass <i>Lolium spp.</i> and white clover <i>Trifolium repens</i> . <u>Species poor &lt;9 species/m<sup>2</sup>. Grass cover usually over 75%. Dominated by palatable grass species.</u>
<b>Woodland (w)</b>	
w1 Broadleaved Mixed and Yew 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 Woodland; Broadleaved	Broadleaved mixed and yew woodland not meeting the definition of w1a to w1f (Upland Oakwood, Upland Mixed Ashwoods, Lowland Beech and Yew Woodland, Wet Woodland, Upland Birchwoods and Lowland Mixed Deciduous Woodland).
w1g6 Line of Trees	A line of trees <u>at least 20 metre in length</u> with open habitat on each side. Includes grow out hedgerows, avenues, narrow windbreaks, willows and alders along watercourses. Excludes overgrown hedgerows still capable of being laid into a stockproof hedge.
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 20%</u> , with 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.
<b>Heathland and Shrub (h)</b>	
h2 Hedgerows	A boundary line of shrubs, provided that at one time the shrubs were stock proof and more or less continuous. Includes where gaps between trees and shrubs <20m and any tree or herbaceous vegetation <2m from the hedgerow centre.

<b>UK Habitat Classification Habitat Definitions (Commonly Recorded Habitat Types)<sup>24</sup></b>	
<b>Habitat Type</b>	<b>Definition</b>
h2a Hedgerow (Priority Habitat)	Hedgerows consisting predominantly (ie 80% or more cover) of at least one woody UK native species. Climbers such as honeysuckle and bramble are not included in the definition of woody species.
h2b Other Hedgerows	Hedgerows that do not consist predominantly (ie 80% or more cover) of at least one woody UK native species.
h3 Dense Scrub	Patches of shrubs less than 5 metres tall with continuous (>90%) cover. Includes patches with occasional trees more than 5 metres tall (s.c. 11) and tree species less than 5m tall. Sub categories dependent on dominant species: h3d Bramble Scrub, h3e Gorse Scrub, h3f Hawthorn Scrub, h3h Mixed Scrub (no single species dominant)
<b>Wetland (f)</b>	
f2e Reedbeds	Wetlands dominated by stands of the common reed <i>Phragmites australis</i> , with the water table at or above ground level for most of the year.
<b>Cropland (c)</b>	
c1a Arable Field Margins	Herbaceous strips or blocks around arable fields that are managed specifically to provide benefits for wildlife. 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.
<b>Urban (u)</b>	
u1a Open Mosaic Habitats on Previously Developed Land	Each of the following five criteria must be met. 1) Open mosaic habitat at least 0.25ha in size. 2) Known history of disturbance or evidence that soil has been removed or severely modified by previous uses(s). Extraneous materials/substrates such as industrial spoil may have been added. 3) Site contains some vegetation. This will comprise early successional communities consisting mainly of stress-tolerant species (e.g. indicative of low nutrient status or drought). Early successional communities are composed of a) annuals, or b) mosses/liverworts, or c) lichens, or d) ruderals, or e) inundation species, or f) open grassland, or g) flower-rich grassland, or h) heathland. 4) Contains unvegetated, loose bare substrate and pools may be present. 5) The site shows spatial variation, forming a mosaic of one or more of early successional communities a-h above (criterion 3) plus bare substrate, within 0.25ha.
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 cleared for development, infrastructure construction or other purpose, currently unvegetated, but the soil surface is not sealed with impervious materials.
u1d Suburban/Mosaic of	Small-scale mosaic of developed and natural surfaces, as in housing and gardens in suburban areas.

<b>UK Habitat Classification Habitat Definitions (Commonly Recorded Habitat Types)<sup>24</sup></b>	
<b>Habitat Type</b>	<b>Definition</b>
Developed/Natural Surface	
u1e Built Linear Features	Roads, railways, walls, fences, surfaced paths.
<b>Rivers and Lakes (r)</b>	
r1 Standing Open Water and Canals	Natural systems such as lakes, meres and pools, as well as man-made waters such as reservoirs, canals, ponds and gravel pits.
r2 Rivers and Streams	Rivers and streams from bank top to bank top, or, 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

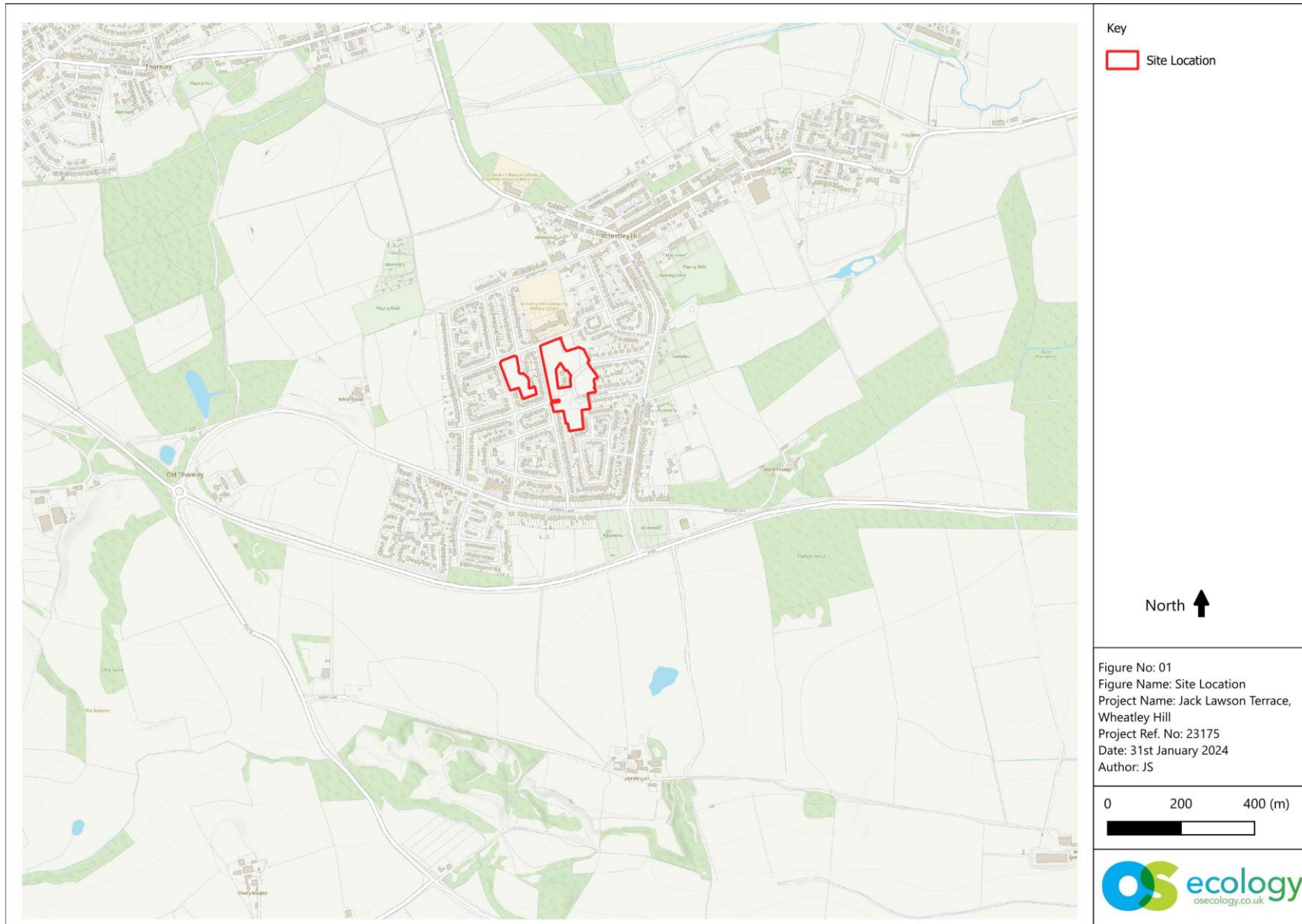
The importance of ecological features is considered within a defined geographic context, examples of which are provided within the table below. The valuation of features is a complex process and, in many cases, requires the application of expert judgement. Valuation considers a range of factors including 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.

<b>Examples of Importance of Ecological Features (Geographic Context)<sup>25</sup></b>			
<b>Importance</b>	<b>Designated Site</b>	<b>Habitat</b>	<b>Species</b>
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

<sup>25</sup> Based on information provided within Guidelines for Ecological Impact Assessment in the UK and Ireland (2018) CIEEM

<b>Examples of Importance of Ecological Features (Geographic Context)<sup>25</sup></b>			
<b>Importance</b>	<b>Designated Site</b>	<b>Habitat</b>	<b>Species</b>
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





Key

 Site Location

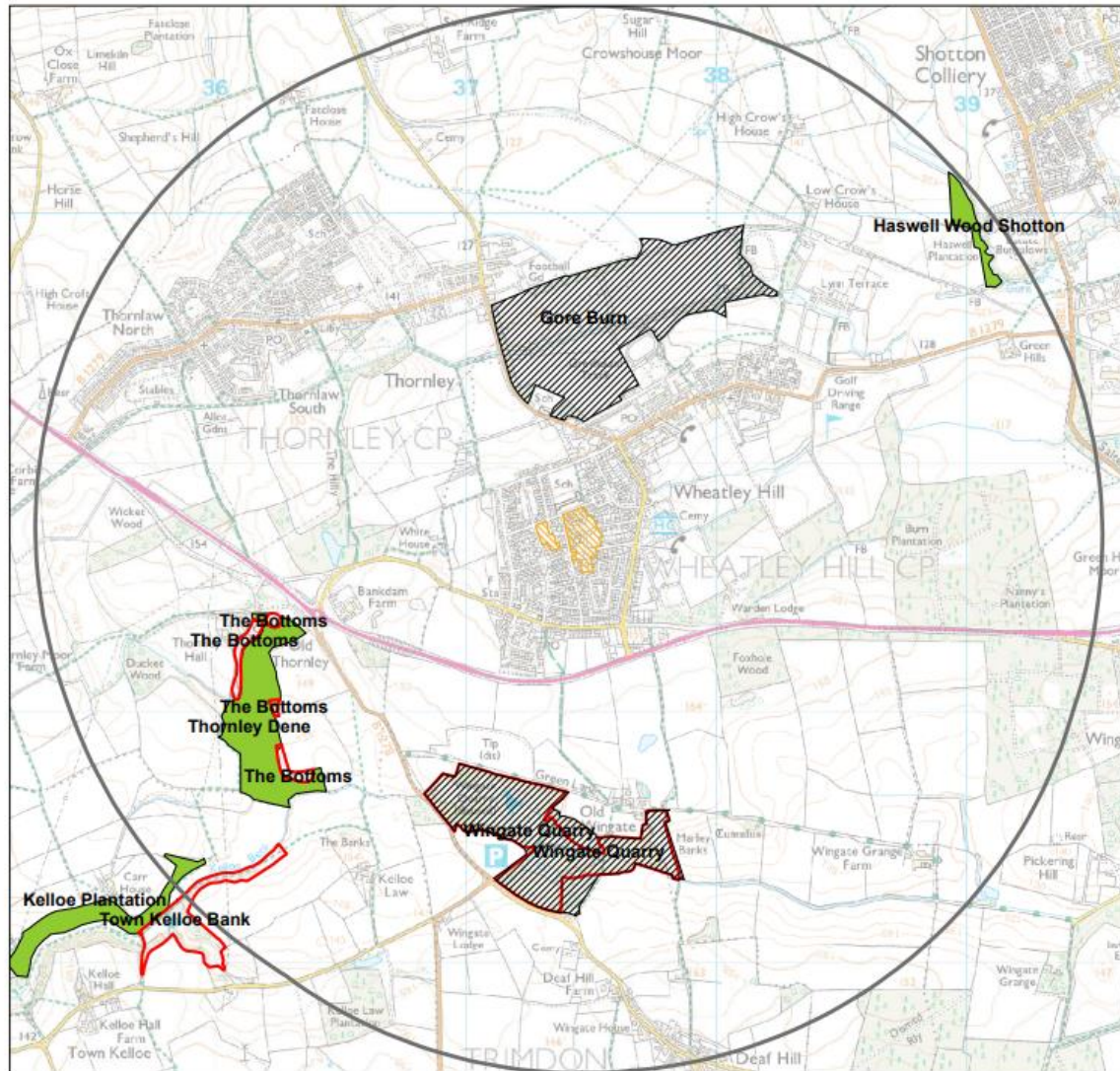
North 

Figure No: 02  
Figure Name: Site Aerial  
Project Name: Jack Lawson Terrace,  
Wheatley Hill  
Project Ref. No: 23175  
Date: 31st January 2024  
Author: JS

0 20 40 (m)







**ECOLOGICAL DATA SEARCH -  
STATUTORY & NON STATUTORY SITES**

**WHEATLEY HILL**

**OS ECOLOGY**

**PLOT PRODUCED: 09 August 2023**

-  Site Boundary
-  2000m Search Area
-  Local Nature Reserve
-  SSSI
-  Durham Local Wildlife Sites

**Produced by**



**Environmental Records  
Information Centre  
North East**

**Great North Museum: Hancock  
Barras Bridge  
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NE2 4PT**

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