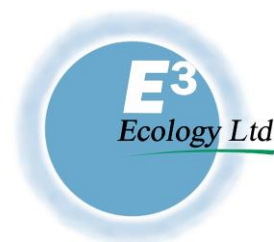


BIODIVERSITY NET GAIN ASSESSMENT AMBERLEY AND HARROGATE STREET, SUNDERLAND



CLIENT: Thirteen Group
PROJECT NUMBER: 6466
AUTHOR: Georgia Vessey
POSITION: Graduate Ecologist
CONTACT DETAILS: georgia.vessey@e3ecology.co.uk

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A. INTRODUCTION

Following on from ecological studies at Amberley and Harrogate Street, E3 Ecology Ltd was commissioned to complete a Biodiversity Net Gain Assessment using DEFRA's Biodiversity Metric 3.0 to calculate the anticipated net change in biodiversity value of the site as a result of the proposed development.

An Ecological Impact Assessment (EclA) of the site (see separate report) recorded the habitats on the proposed development site, which were used to inform this metric assessment.

The site is located at Amberley & Harrogate Street, Sunderland, at an approximate central grid reference of NZ 40231 56281. The habitats on site include strips of amenity and poor semi-improved grassland, intersected by roads. The site boundary and setting are illustrated in the figures below.



FIGURE 1: SITE BOUNDARY
(Google Earth Pro)



FIGURE 2: 500M SITE SETTING
(Google Earth Pro)

The proposed project/development includes the construction of 103 residential houses on the site including two SuDS basins, shared gardens and small areas of public open space. The development proposals are shown in the figure below:



FIGURE 3: DEVELOPMENT PROPOSALS

B. METHODOLOGY

The Biodiversity Metric provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change.

Firstly a desk study was completed using historic aerial imagery to assess whether habitats on site have significantly changed since January 2020, so that sites which may have been purposely degraded or “de-risked” ahead of a planning application submission are not rewarded for doing so, in accordance with DEFRA requirements.

Existing (baseline) and proposed (created or enhanced) habitat types, areas and other associated relevant information was inputted into the metric. All measurements are in hectares and kilometres. QGIS was used to calculate pre and post-development areas.

Condition assessment was undertaken for all habitats, following the guidance provided in the Biodiversity Metric 3.0 Technical Supplement. This was also used to assess areas of possible enhancement for the habitats that are to be retained.

To assign strategic significance, the Local Planning Authority website has been searched for local plans or other accessible resources that would define if any habitats on site are important for their potential biodiversity value or if they form wildlife corridors. DEFRA’s MAGIC website¹ has also been consulted for Natural England designated Network Enhancement Zones (1 or 2) and Fragmentation Action Zones. Where habitats within the site have been identified using these resources, they have been classified as “within an area formally identified in local strategy”. Where habitats have been classified as ecologically desirable, this has been assessed by E3 Ecology, based on professional judgement using the company’s knowledge of the site and adjacent land, for example if it supports key species, habitat types that are limited in the local area or priority habitats. Otherwise, habitats are assessed as “Area/compensation not in local strategy / no local strategy”.

The metric only assesses direct (temporary or permanent) habitat impacts. Where there are potential indirect or species-related impacts, these have been assessed in a separate Ecological Impact Assessment report with appropriate mitigation/compensation provided.

The metric design aims to encourage enhancement, not transformation, of the natural environment². Where possible, habitat created to compensate for loss of a natural or semi-natural habitat aims to be of the same broad type (e.g. new woodland to replace lost woodland) unless there is a good ecological reason to do otherwise (e.g. to restore a heathland habitat that was converted to woodland for timber in the past).

Urban trees, where present on site, have been classified using the ‘urban tree helper’ within the metric. The biodiversity metric 3.0 user guide provides examples of urban tree sizes (table 7.2) though no definition of size ranges. The following reference has been used for size classification:

TABLE 1: URBAN TREE SIZE REFERENCES			
Size	Diameter at Breast Height (cm)	Circumference at Breast Height (cm)	RPA (radius in m)
Small	≤10	≤30	≤1.5
Medium	11 - 49	31 – 149	1.5 – 5.9
Large	≥50	≥150	≥6

¹ <https://magic.defra.gov.uk/magicmap.aspx>

² Natural England Joint Publication JP039 – Biodiversity Metric 3.0: User Guide (2021)

Habitats have been assessed in accordance with the criteria listed in the relevant habitat condition assessment sheets where possible and, if necessary, using surveyors' professional judgement to supplement the condition assessments.

C. RESULTS

C.1 EXISTING AND PROPOSED HABITATS

C.1.1 PRE-DEVELOPMENT

Historic aerial imagery shows that the site has not significantly changed since January 2020.

The EclA of the site (see separate report) recorded the following habitats on the proposed development site:

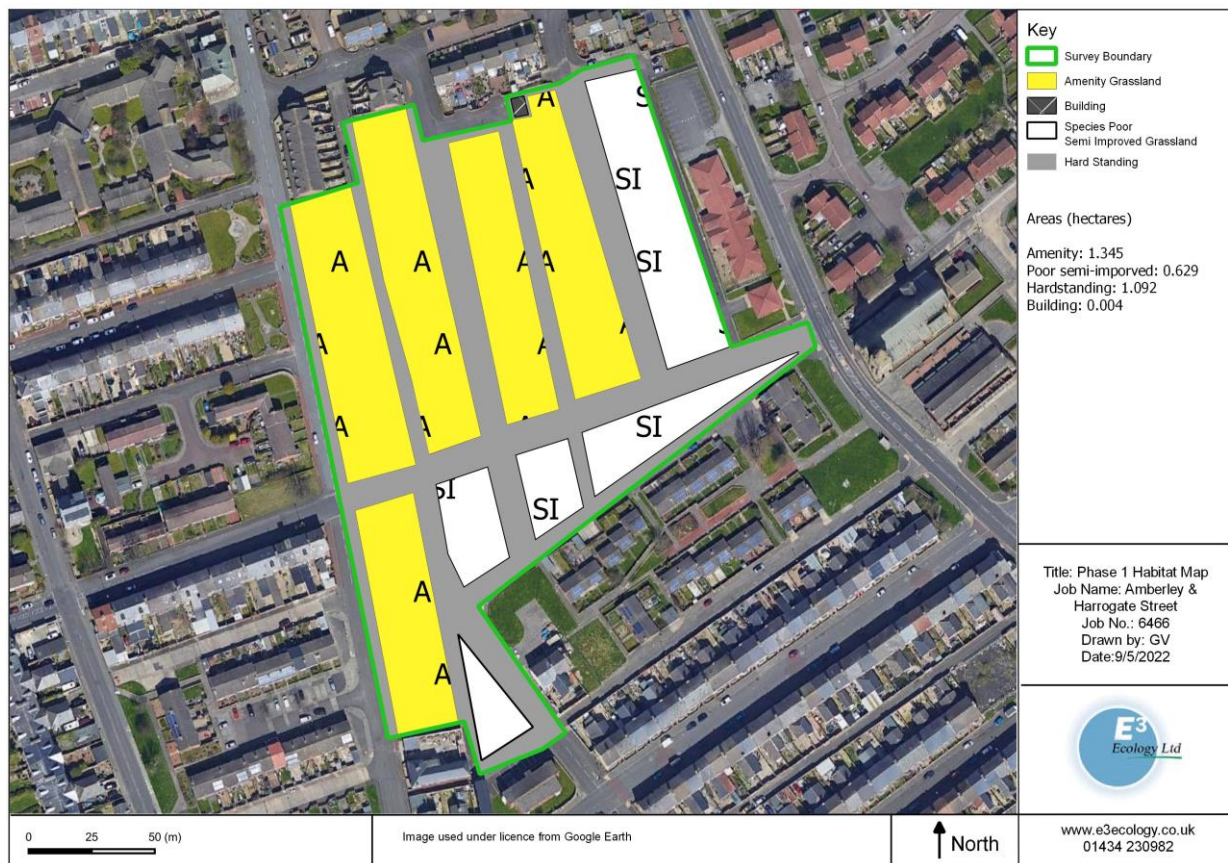


FIGURE 4: HABITAT MAP
(Google Earth Pro)

The above habitats were categorised based on the methodology of the Joint Nature Conservation Committee's Phase 1 Habitat Survey, as outlined in their habitat-mapping manual³. However, as the Biodiversity Metric is based on the UKHab classification system, the on-site recorded habitats have been translated into the below habitats for the purposes of the metric.

The 3.07ha site provides 3.95 habitat units. Baseline habitats are detailed below, with the achieved condition assessment criteria indicated in **bold text**.

- 1.092ha of developed land; sealed surface for hardstanding – condition N/A
- 0.004ha of developed land; sealed surface for buildings – condition N/A
- 1.345ha of amenity grassland classed as modified grassland – assessed as poor condition as it meets three of the seven criteria:
 - There must be 6-8 species per m².

³ Handbook for Phase 1 habitat survey, A Technique For Environmental Audit, JNCC, 2010

- Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm)
- **Scrub accounts for less than 20% of total grassland area.**
- Physical damage evident in less than 5% of total grassland area.
- **Cover of bare ground between 1% and 5%.**
- **Cover of bracken is less than 20%.**
- There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of ground cover.
- 0.629ha of poor semi-improved grassland classed as modified grassland – assessed as poor condition as it meets two of the seven criteria:
 - There must be 6-8 species per m².
 - **Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm)**
 - Scrub accounts for less than 20% of total grassland area.
 - Physical damage evident in less than 5% of total grassland area.
 - Cover of bare ground between 1% and 5%.
 - **Cover of bracken is less than 20%.**
 - There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of ground cover.

The site lies within the Sunderland District Non-Civil Parish. Searches of the council local plans and DEFRA's MAGIC map application determined that all baseline habitats were assessed as "Area/compensation not in local strategy / no local strategy".

C.1.2 POST DEVELOPMENT

Given the scale of the development and low value of existing habitats, the majority of the habitats on site (3.066ha) will be lost to the development except the small substation building in the north of the site (0.004ha). 103 residential properties will be constructed, along with enclosed shared gardens, two SuDS basins and small areas of public open space. The landscaping plan is shown in the figure below.



FIGURE 5: LANDSCAPING PLANS (JDDK/FAIRHURST)

C.1.2.1 HABITAT CREATION

The following habitats will be created, with the targeted condition assessment criteria indicated in **bold text**.

- 0.8239ha of developed land; sealed surface for houses – condition N/A. This area, as well as the vegetated garden area, has been calculated based on an assumption of a 70:30 ratio of developed land; sealed surface compared to vegetated garden in accordance with the Biodiversity Metric 3.0 User Guide recommendations.
- 0.3531ha of vegetated garden – classified as poor condition as the Metric does not allow for higher conditions.
- 1.1874ha of developed land; sealed surface for hardstanding – condition N/A
- 0.2008ha of amenity grassland (classified as modified grassland) – assessed as poor condition based on the habitat meeting three of the seven criteria:
 - There must be 6-8 species per m².
 - Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm)
 - **Scrub accounts for less than 20% of total grassland area.**
 - Physical damage evident in less than 5% of total grassland area.
 - Cover of bare ground between 1% and 5%.

- **Cover of bracken is less than 20%.**
- **There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of ground cover.**
- 0.1145ha of species rich lawn within enclosed shared gardens (classed as other neutral grassland). This area will be seeded with a species-rich lawn mix of at least 9 species per 1m² – assessed as poor condition based on the habitat meeting two of the five criteria:
 - The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.
 - Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm).
 - Cover of bare ground between 1% and 5%.
 - **Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.**
 - **There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.**
- 0.0806ha of species rich wildflower grassland (classed as other neutral grassland). This area will be seeded with a species-rich mix of at least 9 species per 1m² and will be managed with a single annual cut of the wildflowers in late summer (to be secured via a Landscape and Ecology Management Plan or similar in a suitable worded planning condition) – assessed as fairly poor condition based on the habitat meeting three of the five criteria:
 - **The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.**
 - Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm).
 - Cover of bare ground between 1% and 5%.
 - **Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.**
 - **There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.**
- 0.1676ha mixed native scrub – assessed as moderate condition based on the habitat meeting three of the five criteria, as the scrub will largely border the wildflower grassland around the SuDS:
 - **There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).**
 - There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.
 - **There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of ground cover.**

- **The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).**
- There are clearings, glades or rides present within the scrub, providing sheltered edges.
- 0.0762ha of sustainable urban drainage system (SuDS) feature – assessed as moderate condition based on the habitat meeting two of the four criteria:
 - Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.
 - **There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife).**
 - **Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).**
 - The water table is at or near the surface throughout the year. This could be open water or saturation of soil at the surface.
- 0.0619ha of ornamental planting, classified as introduced shrub – automatically assessed as poor condition within the metric.
- 100 urban trees, totalling 0.4069ha. These have been classified as medium trees, with the area calculated via the urban tree helper tool. This area does not form part of the total habitat areas, as urban trees are assumed to overlay habitats that they are found within, rather than replacing them – assessed as moderate condition based on the habitat meeting three of the six criteria:
 - **More than 70% of trees are native species.**
 - Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5m wide.
 - More than 50% of trees are mature or veteran.
 - **There is little or no evidence of adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime so the trees retain >75% of expected canopy for their age range and height.**
 - Management regime has encouraged micro habitat sites for birds, mammals and insects e.g. presence of deadwood, cavities or loose bark etc.
 - **Trees are immediately adjacent to other vegetation, and tree canopies are oversailing vegetation beneath.**
- 0.678km of native hedgerow– assessed as poor condition (condition assessment criteria shown in Appendix 3) based on the hedgerow meeting the following criteria: B1, C2 and D1.

C.2 METRIC SUMMARY

The post-development site will provide 4.60 units for habitats. The table below provides the headline data from the Metric. The excel spreadsheet is provided in digital form for separate review by the Local Planning Authority.

Amberley and Harrogate Street		Return to results menu
Headline Results		
On-site baseline	<i>Habitat units</i>	3.95
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
On-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	4.60
	<i>Hedgerow units</i>	1.31
	<i>River units</i>	0.00
On-site net % change <small>(Including habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	16.49%
	<i>Hedgerow units</i>	100.00%
	<i>River units</i>	0.00%
Off-site baseline	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Off-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total net unit change <small>(including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	0.65
	<i>Hedgerow units</i>	1.31
	<i>River units</i>	0.00
Total on-site net % change plus off-site surplus <small>(including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	16.49%
	<i>Hedgerow units</i>	100.00%
	<i>River units</i>	0.00%
Trading rules Satisfied?	Yes	

Based on the above values, the metric indicates a predicted net gain of 0.65 habitat units, constituting a change of +16.49%.

The metric indicates a net gain of 1.31 hedgerow units (+100%). It should be noted that hedgerow units must be assessed separately to habitat units and both should achieve a 10% net gain; one cannot be used to offset a deficit in the other.

C.3 TIMINGS, MANAGEMENT, MONITORING AND REPORTING PROPOSALS

Developing BNG guidance requires on-site gains (e.g. habitat creation and enhancements) to be delivered within 12 months of the start of construction. If this is not possible, they must be provided before occupation.

“As built” plans will be provided by the developer on completion of construction, and an accompanying updated biodiversity metric submitted to the Local Planning Authority to demonstrate net gain delivery post-construction.

Monitoring will be undertaken on completion (to inform the updating metric), and then in years as agreed with the LPA, with monitoring reports to include recommendations for remedial actions to ensure that the agreed habitats and habitat condition are achieved. These reports

will be submitted to the LPA ecologist and those responsible for any off-site compensation delivery (if provided).

D. CONCLUSIONS

The Biodiversity Net Gain Assessment demonstrates an anticipated net gain of 16.49% in the biodiversity value of the site.

The landscaping proposals referenced in this assessment (if approved) must be correctly implemented and their management should be secured via a suitable management plan, including provisions for monitoring of the success of habitat creation/enhancement measures, providing feedback to the LPA and identifying contingency measures to address any failures.

Based on this assessment it is anticipated that the proposals may contribute to local and national conservation targets and are compliant with the relevant planning policies within the National Planning Policy Framework.

Additional enhancements are proposed which are not considered within the metric, including:

- Provision of integrated bird nesting opportunities suitable for species such as swift, house sparrow, starling, house martin and/or swallow in 10% of new residential units. Bird nesting opportunities should ideally be north to east facing and a minimum of 2m high (swift 4m+) with a clear, open flight path (no trees/buildings in front of box).
- Provision of integrated bat roosting features in 10% of new residential units on site. Bat roosting features should be a minimum of 3-4m high, on gable ends or at eaves height and on southerly elevations. Both bat and bird boxes should be near suitable foraging habitat and away from windows.

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APPENDIX 2 – HEDGEROW CONDITION ASSESSMENT

8 Hedgerow

UKHab Habitat Type		
Native hedgerow Native hedgerow - associated with bank or ditch Native hedgerow with trees Native hedgerow with trees - associated with bank or ditch Native species rich hedgerow Native species rich hedgerow - associated with bank or ditch Native species rich hedgerow with trees Native species rich hedgerow with trees - associated with bank or ditch		
Habitat Description		
See Chapter 8 of User Guide		
Condition Assessment Criteria		
A series of ten attributes, representing key physical characteristics, are used for this assessment. The attributes, and the minimum criteria for achieving a favourable condition in each, are defined. The attributes use similar favourable condition criteria to the Hedgerow Survey Handbook and the handbook is the recommended source of reference for assessing individual hedgerow attributes.		
Hedgerow favourable condition attributes		
Attributes and functional groupings (A, B, C, D & E)	Criteria (the minimum requirements for 'favourable condition'	Description
Core groups - applicable to all hedgerow types		
A1. Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is > 1.5 m height).
A2. Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (e.g. blackthorn suckers) are only included in the width estimate when they >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion

		for up to a maximum of four years (if undertaken according to good practice ⁴).
B1. Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	This is the vertical gappiness of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).
B2. Gap - hedge canopy continuity	- Gaps make up <10% of total length and - No canopy gaps >5 m	This is the horizontal gappiness of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall gappiness, but are not subject to the >5 m criterion (as this is the typical size of a gate).
C1. Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: - measured from outer edge of hedgerow, and - is present on one side of the hedge (at least)	This is the horizontal gappiness of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall gappiness, but are not subject to the >5 m criterion (as this is the typical size of a gate).
C2. Undesirable perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	The indicator species used are nettles (<i>Urtica</i> spp.), cleavers (<i>Galium aparine</i>) and docks (<i>Rumex</i> spp.). Their presence, either singly or together, should not exceed the 20% cover threshold.
D1. Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	Neophytes are plants that have naturalised in the UK since AD 1500. For information on neophytes see the JNCC website and for information on invasive non-native species see the GB Non-Native Secretariat website.
D2. Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g. excessive hedge cutting).
Additional group - applicable to hedgerows with trees only		
E1. Tree age	At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	This criterion addresses if there are sufficient mature trees (within the scope of planning timescales) which are of higher value to biodiversity.
E2. Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.

Each attribute is assigned to one of five functional groups (A – E), as indicated in Table TS1-2 and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the ‘favourable condition’ criteria according to the approach set out in Table TS1-3.

The hedgerow condition assessment generates a score ranging from 1-3, which is used within the biodiversity metric 3.0. The scores for each are set out in tables TS1-3 and TS1-4 below.

Condition categories for hedgerows without trees		
Category	Maximum number of attributes that can fail to meet ‘favourable condition’ criteria in Table TS1-2	Metric Score
Good	No more than 2 failures in total; AND No more than 1 in any functional group.	3
Moderate	No more than 4 failures in total; AND <u>Does not fail both attributes</u> in more than one functional group (e.g. fails attributes A1, A2, B1 & C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; OR <u>Fails both attributes</u> in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition).	1
Condition categories for hedgerows with trees		
Category	Maximum number of attributes that can fail to meet ‘favourable condition’ criteria in Table TS1-2	Metric score
Good	No more than 2 failures in total; AND No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; AND <u>Does not fail both attributes</u> in more than one functional group (e.g. fails attributes A1, A2, B1, C2 & E1 = Moderate condition).	2
Poor	Fails a total of more than 5 attributes; OR <u>Fails both attributes</u> in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition).	1

APPENDIX 3 - PLANNING POLICY AND LEGISLATIVE CONTEXT

NATIONAL PLANNING POLICY

The table below details the key paragraphs from the National Planning Policy Framework (NPPF)⁴ relating to the natural environment:

TABLE 2: NATIONAL PLANNING POLICY FRAMEWORK: CONSERVING AND ENHANCING THE NATURAL ENVIRONMENT	
Statement	Paragraph
<p>Planning policies and decisions should contribute to and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> 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; 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; 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 	174
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 ⁵ ; 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.	175
Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads ⁶ . The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.	176
When considering applications for development within National Parks, the Broads and Areas of Outstanding Natural Beauty, permission should be refused for major development ⁷ other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of: <ul style="list-style-type: none"> a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy; b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated 	177
Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 176), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a	178

⁴ National Planning Policy Framework (July 2021), Department for Communities and Local Government,

⁵ Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.

⁶ English National Parks and the Broads: UK Government Vision and Circular 2010 provides further guidance and information about their statutory purposes, management and other matters.

⁷ For the purposes of paragraphs 177 and 178, whether a proposal is 'major development' is a matter for the decision maker, taking into account its nature, scale and setting, and whether it could have a significant adverse impact on the purposes for which the area has been designated or defined.

TABLE 2: NATIONAL PLANNING POLICY FRAMEWORK: CONSERVING AND ENHANCING THE NATURAL ENVIRONMENT	
Statement	Paragraph
Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.	
To protect and enhance biodiversity and geodiversity, plans should: <ul style="list-style-type: none"> 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 biodiversity⁸; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁹; 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. 	179
When determining planning applications, local planning authorities should apply the following principles: <ul style="list-style-type: none"> a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest; c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists; and d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate. 	180
The following should be given the same protection as habitats sites: <ul style="list-style-type: none"> a) potential Special Protection Areas and possible Special Areas of Conservation; b) listed or proposed Ramsar sites¹⁰; 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. 	181
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.	182

Section 40 of the Natural Environment and Rural Communities Act 2006, places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity.

Planning Practice Guidance¹¹ states:

- Planning authorities need to consider the potential impacts of development on protected and priority species, and the scope to avoid or mitigate any impacts when considering site allocations or planning applications. (para. 016)

⁸ Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

⁹ Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them.

¹⁰ Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar site.

¹¹ Planning Practice Guidance: Natural Environment (www.planningguidance.communities.gov) Updated July 2019

- Information on biodiversity and geodiversity impacts and opportunities needs to inform all stages of development (including site selection and design, pre-application consultation and the application itself). An ecological survey will be necessary in advance of a planning application if the type and location of development could have a significant impact on biodiversity and existing information is lacking or inadequate. (para. 018)
- Even where an Environmental Impact Assessment is not needed, it might still be appropriate to undertake an ecological survey, for example, where protected species may be present or where biodiverse habitats may be lost. (para. 018)
- As with other supporting information, local planning authorities should require ecological surveys only where clearly justified. Assessments should be proportionate to the nature and scale of development proposed and the likely impact on biodiversity. (para. 018)
- The National Planning Policy Framework encourages net gains for biodiversity to be sought through planning policies and decisions. Biodiversity net gain delivers measurable improvements for biodiversity by creating or enhancing habitats in association with development. Biodiversity net gain can be achieved on-site, off-site or through a combination of on-site and off-site measures. (para. 022)

PROTECTED SPECIES LEGISLATION

The table below details the relevant legislation for the protected species covered within the scope of the survey.

TABLE 3: SUMMARISED SPECIES LEGISLATION		
Species	Relevant Legislation	Level of Protection
Bats (All species)	<ul style="list-style-type: none"> • Protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Classified as protected species under The Conservation of Habitats and Species Regulations 2017 (as amended) • Bats are also protected by the Wild Mammals (Protection) Act 1996 	<p>The WCA (1981) and The Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to:</p> <ul style="list-style-type: none"> • Intentionally kill, injure, or take any species of bat • Intentionally or recklessly disturb bats • Intentionally or recklessly damage destroy or obstruct access to bat roosts
Otter	<ul style="list-style-type: none"> • Protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Classified as protected species under The Conservation of Habitats and Species Regulations 2017 (as amended) • Otters are also protected by the Wild Mammals (Protection) Act 1996 	<p>The WCA (1981) and The Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to:</p> <ul style="list-style-type: none"> • intentionally kill, injure, or take otters • intentionally or recklessly disturb otters • intentionally or recklessly amage destroy or obstruct access to otter holts or any place used by the animal for shelter or protection
Great Crested Newt	<ul style="list-style-type: none"> • Protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Classified as protected species under The Conservation of Habitats and Species Regulations 2017 (as amended) 	<p>The WCA (1981) and The Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to:</p> <ul style="list-style-type: none"> • intentionally kill, injure, or take great crested newts • intentionally or recklessly disturb great crested newts • intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection
Red Squirrel	<ul style="list-style-type: none"> • Full protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Red squirrels are also protected by 	<p>The WCA (1981) makes it an offence to:</p> <ul style="list-style-type: none"> • intentionally kill, injure, or take red squirrels • intentionally or recklessly damage destroy or obstruct access to any place used by the animal

TABLE 3: SUMMARISED SPECIES LEGISLATION

Species	Relevant Legislation	Level of Protection
	the Wild Mammals (Protection) Act 1996	for shelter or protection or disturb red squirrels whilst they are using such a place.
Birds	<ul style="list-style-type: none"> Protection under the Wildlife and Countryside Act (1981) as amended with the exception of some species listed in Schedule 2 of the Act 	The WCA (1981) makes it an offence to (with exceptions for certain species): <ul style="list-style-type: none"> Intentionally kill, injure or take any wild bird Intentionally take, damage or destroy nests in use or being built (including ground nesting birds) Intentionally take, damage or destroy eggs Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst they are at their nests
White-clawed Crayfish	<ul style="list-style-type: none"> Partially protected by the Wildlife and Countryside Act (1981) 	The WCA (1981) makes it an offence to: <ul style="list-style-type: none"> Take a white-clawed crayfish from its habitat Sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead white clawed crayfish
Badger	<ul style="list-style-type: none"> Protection of Badgers Act 1992 Badgers are also protected by the Wild Mammals (Protection) Act 1996 	The Protection of Badgers Act (1992) makes it an offence to intentionally or recklessly: <ul style="list-style-type: none"> Damage a badger sett or any part of it Destroy a badger sett Obstruct access to, or any entrance of a badger sett Disturb a badger whilst it is occupying a badger sett
Water Vole	<ul style="list-style-type: none"> Full protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended Water voles are also protected by the Wild Mammals (Protection) Act 1996 	The WCA (1981) makes it an offence to: <ul style="list-style-type: none"> intentionally kill, injure, or take water voles intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection or disturb water voles whilst they are using such a place
Common reptiles (Slow-worm, Adder, Grass Snake, Common Lizard)	<ul style="list-style-type: none"> Partially protected by the Wildlife and Countryside Act 	The WCA (1981) makes it an offence to: <ul style="list-style-type: none"> intentionally kill or injure these animals sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals
<p><i>Under the Countryside and Rights of Way Act 2000 (CROW Act) the offence in section 9(4) of the Wildlife and Countryside Act 1981 of damaging a place of shelter or disturbing those species given full protection under the act is extended to cover reckless damage or disturbance.</i></p>		

INVASIVE SPECIES LEGISLATION

The table below details the legislation in relation to invasive species and lists those invasive species most likely to be found in this region.

TABLE 4: SUMMARISED INVASIVE SPECIES LEGISLATION

Relevant Legislation	Description of Offence	Species <i>(Covered by the Legislation and most likely to be found in this Region)</i>

TABLE 4: SUMMARISED INVASIVE SPECIES LEGISLATION

Relevant Legislation	Description of Offence	Species <i>(Covered by the Legislation and most likely to be found in this Region)</i>
Listed on Part II of Schedule 9 of the Wildlife and Countryside Act (1981 as amended)	Section 14 of the WCA (1981) states: <ul style="list-style-type: none"> if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence. 	Himalayan balsam Cotoneaster Montbretia Japanese knotweed Giant hogweed Rhododendron Pirri-pirri bur New Zealand pygmyweed Giant rhubarb Japanese rose

PROTECTED SITE LEGISLATION

CONTEXT IN REGARD TO THE UK'S EXIT FROM THE EUROPEAN UNION

As of 1st January 2021, the UK is no longer bound by the Birds Directive and Habitats Directive. However, the Conservation of Habitats and Species Regulations still applies, which formerly acted to transpose the Birds Directive and the Habitats Directive into English and Welsh law. These are still referred to below for contextual purposes, as designated site citations and conservation objectives may not have been updated following the changes to applicable legislation and may still refer to the Directives.

STATUTORILY DESIGNATED SITES

Ramsar Site

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention recognises wetlands as important ecosystems and includes a range of wetland types from marsh to both fresh and salt water habitats. The wetlands can also include additional areas adjacent to the main water-bodies such as river banks or coastal areas where appropriate.

Special Protection Area (SPA)

SPAs are classified by the UK Government under the EC Birds Directive and comprise areas which are important for both rare and migratory birds.

Special Areas of Conservation (SAC)

SACs are designated under the EC Habitats Directive and are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 unless they are offshore.

Sites of Special Scientific Interest (SSSI)

SSSIs are designated as sites which are examples of important flora, fauna, or geological or physiographical features. They are notified under the Wildlife and Countryside Act 1981 with improved provisions introduced by the Countryside and Rights of Way Act 2000.

National Nature Reserve (NNR)

NNRs are designated by Natural England under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 and support important ecosystems which are managed for conservation. They may also provide important opportunities for recreation and scientific study.

Country Parks

Country Parks are statutorily designated and managed by local authorities in England and Wales under the Countryside Act 1968. They do not necessarily have any nature conservation importance, but provide opportunities for recreation and leisure near urban areas.

Local Nature Reserves (LNR)

LNRs are designated under the National Parks and Access to the Countryside Act 1949 by local authorities in consultation with Natural England. They are managed for nature conservation and used as a recreational and educational resource.

NON-STATUTORILY DESIGNATED SITES

Non-Governmental Organisation Property

These are sites of biodiversity importance which are managed as reserves by a range of NGOs. Examples include sites owned by the RSPB, the Woodland Trust and the Wildlife Trusts.

Local Wildlife Site (LWS)

These are sites defined within the local plans under the Town and Country Planning system and are material considerations of any planning application determination. They are designated by the local authority although criteria for designation can vary between authorities.

PRIORITY SPECIES

Although not afforded any legal protection, national priority species (species of principal importance, as listed in Section 41 of the NERC Act (2006)), and local and regional priority species, as detailed within the relevant biodiversity action plans, are material considerations in the planning process and as such have been assessed accordingly within this report.

The tables below detail the species/species groups and habitats listed as priorities within the biodiversity action plans of the main Local Planning Authorities' within the north-east of England.

TABLE 5: BIODIVERSITY ACTION PLANS					
Northumberland Biodiversity Action Plan					
Species			Habitats		
Barn Owl	Bats	Black Grouse	Blanket Bog	Built Environment	Brownfield Land
Coastal Birds	Common Seal	Dingy Skipper	Calaminarian Grassland	Coastal heathland	Fen, Marsh & Swamp
Dormouse	Farmland Birds	Freshwater Fish	Gardens & Allotments	Heather Moorland	Lowland Heathland
Freshwater Pearl Mussel	Garden Birds	Great Crested Newt	Lowland Meadows & Pastures	Maritime Cliffs & Slopes	Native Woodland
Grey Seal	Hedgehog	Otter	Ponds, Lakes & Reservoirs	Recreational & Amenity Space	Reedbed
Red Squirrel	River Jelly Lichen	Upland Waders	Rivers & Streams	Rocky Shore, Reefs & Islands	Saline Lagoons
Violet Crystalwort	Water Rock-bristle	Water Vole	Saltmarsh & Mudflat	Sand Dunes	Transport Corridors
White-Clawed Crayfish			Trees & Hedgerows	Upland Hay Meadows	Whin Grassland
Durham Biodiversity Action Plan					
Species			Habitats		
Barn Owl	Coastal Birds	Farmland Birds	Native Hedgerows	Veteran Trees, Parkland and Wood Pasture	Woodland and Scrub
Nightjar	Spotted Flycatcher	Upland Birds	Ponds, Lakes & Reservoirs	Lowland Fen	Rivers & Streams
Urban and Garden Wildlife	Freshwater Fish	Grass Snake	Blanket Bog and Upland Wet Heath	Calaminarian Grassland	Upland Calcareous Grassland
Great Crested	Reptiles	Chalk Carpet	Upland Dry	Upland	Upland Screes

TABLE 5: BIODIVERSITY ACTION PLANS								
Newt		Moth	heath and Acid Grassland	Haymeadows	and Rock Habitats			
Cistus Forrester	Dark Green Fritillary	Dingy Skipper	Brownfield Sites	Built Structures	Coastal Habitats			
Glow Worm	Grayling	Green Hairstreak	Lowland Heath	Lowland Meadows & Pasture	Magnesian Limestone Grassland			
Least Minor Moth	Mud Snail	Northern Brown Argus	Transport Corridors	Waxcap Grassland				
Northern Dart	Round Mouthed Whorl Snail	Small Pearl-bordered Fritillary						
White Clawed Crayfish	White-letter Hairstreak	Badger						
Bats	Brown Hare	Dormouse						
Harvest Mouse	Hedgehog	Otter						
Pine Marten	Polecat	Red Squirrel						
Water Vole	Water Shrew	Black Poplar						
Juniper	Pale Bristle-Moss	Yellow Marsh Saxifrage						
Newcastle and North Tyneside Biodiversity Action Plan								
Habitats						Species		
Brownfield Land	Transport Corridors	Open Water & Wetland				Amphibians	Dingy Skipper	Otter
Rivers and Watercourses	Managed Urban Greenspace	Native Woodland	Urban Birds	Water Vole	Red Squirrel			
Lowland Grassland	Scrub, Shrub & Hedgerow	Buildings and Structures	Hedgehog	Slow Worm	Bumblebee			
Estuary & Coastal			Brown hare	Farmland Birds	Bats			
Tees Valley Biodiversity Action Plan								
Species			Habitats					
Barn Owl	Ringed Plover	Grey Partridge	Tree Sparrow	Traditional Orchards	Semi-natural Broadleaved Lowland Woodland			
Little Tern	Corn Bunting	Shelduck	Wagtail Yellow	Reedbeds	Rivers & Streams			
Bittern	Swift	Purple Milk-vetch	Water Violet	Arable field Margins	Roadside Verges			
Globeflower	Pepper saxifrage	Tufted Sedge	Knotted hedge-parsley	Lowland Meadows	Sand Dunes			
Yellow Star of Bethlehem	Burnt Orchid	Green Winged Orchid	Strawberry Clover	School Grounds	Maritime Cliffs and Slopes			
Flat Sedge	Small Leaved Lime	Black Poplar	Lyme Grass	Grazing Marsh	Hedgerows			
Scarlet Wax Cap	White-letter Hairstreak	Grayling	Dingy Skipper	Gardens and Allotments	Saline Lagoons			
Blomer's Rivulet	Crescent Striped	Forester	Large Red-Belted Clearwing	Marsh and Saltmarsh	Ponds, Lakes & Reservoirs			
Fen Wainscot	Shore Wainscot	Eccentric Grass Snail	Moss Chrysalis Snail	Parks and Recreation Grounds	Lowland Heath			
Moss Chrysalis Snail	Bats (except common pipistrelle)	Brown Hare	Harvest Mouse	Brownfields	Churchyards and Cemeteries			
Harbour Seal	Water Vole	Common Lizard	Slow Worm					
Great Crested Newt	Bullhead	Salmon	Brown Trout					
European Eel	Brook Lamprey	Sea Lamprey	River Lamprey					
Cumbria Biodiversity Action Plan								
Species			Habitats					
Red Wood Ant	Wall Mason Bee	a ground beetle	Rivers	Lakes, Ponds	Hedgerows			

TABLE 5: BIODIVERSITY ACTION PLANS

		<i>Dyschirius angustatus</i>		and Tarns	
a ground beetle <i>Bembidion testaceum</i>	Oxbow Diving Beetle	Barn Owl	Traditional Orchards	Wood-Pasture & Parkland	Semi-natural Woodland
Song Thrush	Pearl Bordered Fritillary	High Brown Fritillary	Lowland Dry Acid Grassland	Calcareous Grassland	Hay Meadows and Pastures
Marsh Fritillary	Netted Carpet	Least Minor	Coastal and Floodplain Grazing Marsh	Heathland	Fen, Marsh and Swamp
a caddisfly <i>Glossosoma intermedium</i>	Freshwater Crayfish	Variable Damselfly	Bogs	Montane Habitats	Rock habitats
White-faced Dragonfly	Atlantic Salmon	Schelly	Calaminarian Grasslands	Previously developed land	Coastal Habitats above High Water
Vendace	Southern silver Stiletto-fly	Northern Silver Stiletto-fly	Coastal Intertidal Habitats	Coastal Saline lagoons	Coastal Subtidal Habitats
River Jelly Lichen	a lichen <i>Lobaria amplissima</i>	Pink Waxcap			
Medicinal Leech	Whiskered Bat	Brandt's Bat			
Natterer's Bat	Daubenton's Bat	Noctule			
Common Pipistrelle	Soprano Pipistrelle	Brown Long-eared Bat			
Red Squirrel	Water Vole	Hazel Dormouse			
Sandbowl Snail	a whorl snail <i>Vertigo geyeri</i>	Slender Green Feather-moss			
Great Crested Newt	Natterjack Toad	Pillwort			
Juniper	Northern Hawksbeard	Small White Orchid			