Date: 30 April 2024

Contract Ref: 2853

BIODIVERSITY NET GAIN ASSESSMENT

LAND OFF ST. GEORGES ROAD,
SEMINGTON, WILTSHIRE

for

GREENSQUAREACCORD

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CONTROL SHEET

GreenSquareAccord

Land off St. George's Road, Semington, Wiltshire BA14 6GA

Biodiversity Net Gain Assessment

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Contract No.	Project Contact	Report No.	Version	Date of Issue
2853	Jennifer Kearney	002	Final	29 November 2023
			Final Rev A	30 November 2023
			Final Rev B (changes highlighted)	24 April 2024
			Final Rev C (changes highlighted)	30 April 2024

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Template Version: V3 (May 2023).

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1. OVERVIEW

1.1 Background

1. Focus Environmental Consultants (Focus) was commissioned by GreenSquareAccord (the Client) to undertake a Biodiversity Net Gain (BNG) Assessment of Land at St. George's Road, Semington, BA14 6GA (the Site).

2. The objective of this BNG Assessment is to provide a quantitative measure of the predicted change in biodiversity value of the site, prior to and following development. Biodiversity units are calculated based on their area, distinctiveness, and condition, in accordance with the previous State-approved biodiversity metric (DEFRA Biodiversity Metric 4.0), which was the most up-to-date version at the time of reserved matters application submission. The purpose of the exercise is to demonstrate the capability to generate a net gain in biodiversity.

3. This BNG Assessment has been produced to satisfy Condition 9 of appeal reference APP/Y3940/W/19/3236860 of planning application reference 19/02147/OUT, which states:

   '9) Prior to or alongside the submission of the reserved matters, details of biodiversity enhancement measures to be undertaken within the site shall be submitted to and approved in writing by the local planning authority. The agreed scheme shall be implemented in full within a timeframe to be agreed in writing with the local planning authority and maintained thereafter.'

4. This updated BNG assessment (Final Rev C) reflects the landscaping and development design on drawing PRI24309-11E Composite, dated April 2024, following reserved matters application (reference PL/2023/10561) and comments returned by the County Ecologist (dated 05 March 2024). All changes have been highlighted in yellow to aid review.

1.2 Site Location and Description

1. The Site is located north of St. George's Road, Semington and is centred on Ordnance Survey (OS) grid reference ST 8923 6042. Residential development is present to the south and east of the Site, whilst arable farmland is present to the north and west. The Kennet and Avon canal and River Avon are located within 2km north of the Site.

2. The Site is approximately 2ha in size and comprises native hedgerows, modified grassland, scrub and a WWII Pillbox building with associated hardstanding.

1.3 Development Proposals

1. The development proposals are for a residential development, consisting of 26 houses and bungalows, with associated infrastructure, soft and hard landscaping (the Proposed Development). Areas of Public Open Space (POS) and casual green space have been included in the development design. The development layout can be seen in the illustrative masterplan (Drawing PRI24309-11E Composite, dated April 2024).

2. RESULTS

2.1 Headline Results

This section of the report must be read in conjunction with the DEFRA Biodiversity Metric 4.0 calculator completed for the project and provided alongside this document (Focus Environmental Consultants, 2024). The post-development habitat and linear units were calculated based on the following development plan: PRI24309-11E Sheet 1 and PRI24309-11E Sheet 2 provided by ACD Environmental Ltd, in April 2024.

Table 1: summary of headline results

On-site Baseline	**Habitat Units**	8.16
	Hedgerow Units	1.58
	Watercourse Units	0
On-site post-intervention (including habitat retention, creation, enhancement and succession)	**Habitat Units**	9.00
	Hedgerow Units	3.19
	Watercourse Units	1.11
Total net unit change (including all on-site and off-site habitat retention/creation)	**Habitat Units**	0.84
	Hedgerow Units	1.61
	Watercourse Units	1.11
Total net % change (including all on-site and off-site habitat creation + retained habitats	**Habitat Units**	10.29%
	Hedgerow Units	102.30%
	Watercourse Units	100%

2.2 Conclusion

The results demonstrate that the proposed development will result in an overall net gain in biodiversity. The development will achieve a 10.29% net gain in habitat units, a 102.30% net gain in hedgerow units, and a 100% net gain in watercourse units. The Biodiversity Net Gain assessment has been completed by a competent ecological consultant and in accordance with relevant technical guidance and support (*i.e.* Natural England 2023a; Natural England 2023c; Natural England 2023d).

The development complies with Core Policy 50 of the Wiltshire Core Strategy 2015, which states: '*All development should seek opportunities to enhance biodiversity. Major development in particular must include measures to deliver biodiversity gains through opportunities to restore, enhance and create valuable habitats, ecological networks and ecosystem services. Such enhancement measures will contribute to the objectives and targets of the Biodiversity Action Plan (BAP) or River Basin/ Catchment Management Plan, particularly through landscape scale projects, and be relevant to the local landscape character*.'

The development has also sought opportunities to enhance existing habitats at the Site to provide benefits for both wildlife and public access (in particular orchard habitat in the south-east of the Site). Bird bricks will be incorporated into the residential buildings at the Site on a 1:1 ratio. In addition, the WWII pillbox will be enhanced for use by greater horseshoe bats and other opportunistic bat species in the local area. The created habitats (orchard habitat, individual trees, grassland, hedgerows etc.) as part of the proposed development will enhance the ecological networks in the local area, ensuring ecological functionality of the Site and surrounding habitats.

3. ANNEXES

3.1 Plans

3.2 Survey Data

3.3 Objectives

3.4 Limitations

3.5 Methods

3.6 References & Bibliography

3.1 Plans

3.1.1 Baseline Biodiversity Habitat Plan

PRI24309-11E Composite – Final Landscape Plan

3.1.1 Baseline Biodiversity Habitat Plan



Legend

- Site Boundary
- h2a - hedgerow (priority habitat)
- u1b5 - buildings (826 historic building)
- h3h - mixed scrub
- u1b - developed land. sealed surface
- g4 - modified grassland (109 hay)

Client:	GreenSquareAccord
Site:	Land off St. Georges Road
Title:	Baseline Biodiversity Habitat Plan
Contract:	2853
Survey Date:	07 August 2023
Issue Date:	30 April 2024
Version:	Final Rev C

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Please note: this plan is intended only to indicate the approximate location of features and should therefore, not be treated as an accurate scale plan.



Legend - Ecology enhancements

- Proposed 4no Sparrow Terrace Boxes, stretcher bond brick fronted, with 3 internal nesting spaces per box, totalling 12no integrated features. To be installed at a height of 4 metres, in line with Ecologist recommendations. For specification refer to LEMP document.
- Proposed 5no Standard Bird Box, stretcher bond brick fronted, to be installed at a height of 4 metres, in line with Ecologist recommendations. For specification refer to LEMP document.
- Proposed 9no Swift Boxes, stretcher bond brick fronted, to be installed at a height of 4 metres, installed in groups of 3, in line with Ecologist recommendations. For specification refer to LEMP document.
- Proposed 4no hedgehog houses. For specification refer to LEMP document.
- Proposed 4no invertebrate houses. For specification refer to LEMP document.
- Proposed 3no log/brash piles. For specification refer to LEMP document.
- Bat corridor area

Legend

- Existing trees to be retained and protected during construction
- Proposed tree planting within soft landscape. See detail 1 on sheet 3
- Proposed multi stem tree within soft landscape. See detail 2 on sheet 3
- Proposed specimen shrub planting to receive short angular staking on half standards with expandable tree ties
- Proposed climbing plants to be trained up adjacent wall/ fence with galvanised wires and hook set 25cm apart with support canes removed prior to planting
- Proposed hedge planting to be planted in a single row at 0.3m centres. To be maintained at 0.6m height
- Proposed mixed hedge planting to be planted in a single row at 0.3m centres. To be maintained up to the height of adjacent fence, elsewhere at 1.5m height
- Proposed hedge planting to be planted in a double staggered row 300mm apart and at 0.4m centres in each row. To be maintained at 1.0m height
- Proposed mixed native hedge planting to be planted in a double staggered row 0.3m apart and at 0.4m centres in each row, with rabbit guards. To be maintained at 1.8m height along site boundaries and 1.0m height at Plots 11 & 14 gardens)
- Proposed shrub planting to receive 75mm bark mulch after planting operations
- Proposed decorative mix shrub planting to be planted in groups of 3-4no. of each species and as above
- Proposed native mix planting to be planted in groups of 5-7no. of each species and as above
- Proposed shrub planting (single or mixed species) to receive 50mm gravel mulch laid with weed mat below. Holes to be cut in the mat in planting locations
- Proposed timber edge between gravel and planting areas (see Plans for locations)
- Proposed pond edge/wetland planting mixes to be planted in groups of 4no
- Proposed grass areas to receive good quality amenity grass turves laid in line with good horticultural practices
- Proposed grass areas to be seeded with EL1 'Flowering Lawn Mixture' as supplied by Emorsgate Seeds and sown at 4grams per sqm, laid in line with good horticultural practices
- Proposed meadow clay mix, to be seeded with Wildflower W1 meadow mixture, at a rate of 4 grams per msq. Refer to ACD document PRI24309 Spec for the full list of plant species
- Proposed meadow mix, to be seeded with Wildflower W3 meadow mixture, at a rate of 4 grams per msq. Refer to ACD document PRI24309 Spec for the full list of plant species
- Proposed wetland meadow mixture, to be seeded with W6 seed mix, at a rate of 4 grams per msq. Refer to ACD document PRI24309 Spec for the full list of plant species
- Proposed hedgerow meadow mixture, to be seeded with W2 seed mix, at a rate of 4 grams per msq. Refer to ACD document PRI24309 Spec for the full list of plant species
- Proposed retained grassland
- Proposed mown grass path
- Proposed root barrier
- Cut lines

Rev	Date	Details	Drawn
E	30.04.24	Tree amendments	AC
D	22.04.24	Comments	AC
C	12.04.24	Layout update/comments	AC
B	30.11.23	Client comments	AC
A	29.11.23	Tree amendments	AC

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scheme: St. Georges Road Semington
client: Green Square Accord
drawing: Soft Landscape Proposals
date: September 2023
scale: 1:200@A1
drawing no: PRI24309-11E Composite
drawn: AC checked: HCS

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3.2 Survey Data

3.2.1 Summary of Habitat Classification Data

All surveys have been completed by appropriately qualified and experienced ecologists from Focus Environmental Consultants. Third-party data has been obtained from Wiltshire and Swindon Biological Records Centre (WSBRC) and the government's multi-agency website 'magic' (www.magic.gov.uk) was also consulted. Copies of raw data are available on request. Please contact the Project Contact at Focus Environmental Consultants for more details. Tables 2 – 3 provide details of the habitat and hedgerow features. Copies of Condition Assessment forms are provided in 3.2.2, below.

Table 2: Summary of Habitat Features

Parcel Ref.	UK Habitat Classification Habitat Type & Code	Species List & Notes	Photograph	Condition	Area (ha)
1	g4 modified grassland 109 (hay)	Medium sward grassland dominated by grass species (over 75% cover of grasses), such as Yorkshire-fog, perennial rye grass and cock's foot. Other grass species include false oat-grass and Timothy. Herbaceous species found occasionally (generally close to the hedgerow bases) included white clover, common dandelion, ribwort plantain, yarrow, creeping buttercup, cow parsley, meadow vetchling and occasional nettles. Approximately 6 species per m^2 or fewer were recorded within this habitat and definitions of modified grassland within the UKHab guidelines correlate best to the grassland at the Site. Regular mechanised cutting management of grassland, sun-drying and collection of the cut material for hay. Historically used for silage and grazing	 **Plate 1:** Modified grassland in Parcel 1. Photograph looking north-west.	Moderate	1.975ha (1.908ha and 0.067ha split for habitat enhancement purposes)

Parcel Ref.	UK Habitat Classification Habitat Type & Code	Species List & Notes	Photograph	Condition	Area (ha)
2	h3h mixed scrub	Dominated by common nettle with patches of bramble along the western boundary of the Site and a small extent to the north-east of the Site. Eight immature trees were present towards the northern extent of the scrub line, namely hawthorn, blackthorn and dead specimens. Other species present included rosebay willowherb, cow parsley and hedge bindweed. Grass species were also occasionally present.	 **Plate 2:** Mixed scrub in Parcel 2. Photograph looking north-west.	Poor	0.065ha
3	u1b5 buildings and u1b developed land, sealed surface	A WWII pillbox structure present in the north-east of the Site with large openings on the eastern and western elevations. Small post-box style openings present at approximately 1.5m from ground level on the eastern and western elevations. Hardstanding cement area to the east of the pillbox building. Covered in moss and pioneer species through the cracks.	 **Plate 3:** WWII Pillbox in Parcel 3. Photograph looking north-west.	N/A	0.035ha

Parcel Ref.	UK Habitat Classification Habitat Type & Code	Species List & Notes	Photograph	Condition	Area (ha)
			 **Plate 4:** Hardstanding in Parcel 3. Photograph looking south.		

Table 3: Summary of Hedgerow Features

Hedge Ref.	UK Habitat Classification Habitat Type & Code	Species List & Notes	Photograph	Condition	Length (km)
H1	h2a native hedgerow	Native and species poor. English elm dominant species with other species present include hazel, hawthorn, blackthorn, field maple and elder. No more than 4 woody species were present within a 30m stretch.	 **Plate 5:** Hedgerow H1. Photograph looking south-west.	Good	0.133km
H2	h2a native hedgerow	Native and species poor. 23m within the Site boundary, consisting of English elm. Other species within the hedgerow to the south of the Site include hazel, hawthorn, blackthorn, field maple and elder. No more than 4 woody species were present along a 30m stretch.	 **Plate 6:** Part of H2 within the Site boundary. Photograph looking north-east.	Good	0.13km

3.2.2 Condition Assessment Sheets

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)

UK Habitat Classification (UKHab) Habitat Type(s)

Grassland - Modified grassland

Site name and location	Land off St. Georges Road, Semington	**On-site or off-site**	On-site
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference	ST89236042	**Habitat parcel reference**	1

Habitat Description

Modified grassland cut for hay. Mown at the time of survey.

ukhab – UK Habitat Classification

	Condition Assessment Criteria	**Criterion passed (Yes or No)**	**Notes (such as justification)**
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (this may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	Yes	Approximately 6 species per m2, dominated by grasses but including herbaceous species such as white clover and cow parsley)
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	Majority of grassland had been mown at the time of survey but not below 7cm in height. Arisings left in
C	Some scattered scrub (including bramble *Rubus fruticosus* agg.) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	No	0% bare ground
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Yes	
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Yes	
	Essential criterion achieved (Yes or No)		Yes
	Number of criteria passed		5

Condition Assessment Result (out of 7 criteria)	**Condition Assessment Score**	**Score Achieved ×/□**
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	x
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	Yes
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	x

Suggested enhancement interventions to improve condition score

N/A

Footnotes

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

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

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

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

Condition sheet: HEDGEROW Habitat Types

Habitat Type

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

Habitat Description

See the Biodiversity Metric 4.0 User Guide Section 9.
Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.

Site name and location	Land off St. Georges Road, Semington	**On-site or off-site**	On-site
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	

Condition Assessment Criteria

A series of ten attributes, representing key physical characteristics are used for this assessment. This assessment is based on the Hedgerow Survey Handbook[1] and Favourable Conservation Status document[2]. For further clarification please refer to the Hedgerow Survey Handbook.
Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.

Hedgerow favourable condition attributes

Attributes and functional groupings (A, B, C, D and E)		**Criteria - the minimum requirements for 'favourable condition'**	**Criteria description**	**Habitat parcel reference**										
				H1	H2									
				Grid reference										
				ST 892	ST 893 604									
Core groups - applicable to all hedgerow types				**Criterion passed (Yes or No)**										**Notes (such as justification)**
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	Yes	Yes									
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn *Prunus spinosa* suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	Yes	Yes									
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	Yes	Yes									
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).	Yes	Yes									

C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat	Yes	Yes									
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	Yes	Yes									
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA[3]) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website[4], as well as the BSBI website[5] where the 'Online Atlas of the British and Irish Flora'[6] contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website[7].	Yes	Yes									
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 hedgerow cutting).	Yes	Yes									
Additional group - applicable to hedgerows with trees only														
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient[8]), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.											
E3.	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.											

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

Condition categories for hedgerows without trees		
Category	**Category Requirements**	**Metric Score**
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 4 failures in total; **AND** Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 and C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; **OR** Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	**Both 3**

Condition categories for hedgerows with trees		
Category	**Category Requirements**	**Metric score**
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group (e.g., fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2

Poor	Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – DEFRA (2007) *Hedgerow Survey Handbook. A standard procedure for local surveys in the UK.* [online] Available on:
layout (hedgelink.org.uk)

Footnote 2 – STALEY, J.T. ET AL. (2020) *Definition of Favourable Conservation Status for Hedgerows.* [online] Available on:
Definition of Favourable Conservation Status for Hedgerows - RP2943 (naturalengland.org.uk)

Footnote 3 – Wildlife and Countryside Act 1981 (as amended).

Footnote 4 – CHEFFINGS, C. M. et al. (2005) *The Vascular Plant Red Data List for Great Britain.* Species Status 7: 1-116. [online] Available on:
The Vascular Plant Red Data List for Great Britain (Species Status No. 7) | JNCC Resource Hub

Footnote 5 – BOTANICAL SOCIETY OF BRITAIN AND IRELAND (BSBI). *Definitions: wild, native or alien?* [online] Available on:
Definitions: wild, native or alien? – Botanical Society of Britain & Ireland (bsbi.org)

Footnote 6 – BSBI and Biological Records Centre (BRC) (2022) *Online Atlas of the British and Irish Flora.* [online] Available on:
Acknowledgements | Online Atlas of the British and Irish Flora (brc.ac.uk)

Footnote 7 – GB NON-NATIVE SPECIES SECRETARIAT (GBNNSS) (2022) Available on:
Home » NNSS (nonnativespecies.org)

Footnote 8 – See gov.uk standing advice on ancient and veteran trees. Available from:
Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)
and
Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

Condition Sheet: SCRUB Habitat Type

UK Habitat Classification (UKHab) Habitat Type

Heathland and shrub - Blackthorn scrub
Heathland and shrub - Gorse scrub
Heathland and shrub - Hawthorn scrub
Heathland and shrub - Hazel scrub
Heathland and shrub - Mixed scrub
Heathland and shrub - Dunes with sea buckthorn (H2160)
Heathland and shrub - Willow scrub

Habitat Description

Mixed scrub dominated by nettle and bramble

For Dunes with sea buckthorn see:	Dunes with sea-buckthorn (Dunes with Hippophae rhamnoides) - Special Areas of Conservation (jncc.gov.uk)		
For other scrub types see:	ukhab – UK Habitat Classification		
Site name and location	Land off St. Georges Road, Semington	**On-site or off-site**	On-site
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference	ST89166041	**Habitat parcel reference**	2

	Condition Assessment Criteria	**Criterion passed (Yes or No)**	**Notes (such as justification)**
A	The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species[1], with no single species comprising more than 75% of the cover (except hazel *Corylus avellana*, common juniper *Juniperus communis*, sea buckthorn *Hippophae rhamnoides* or box *Buxus sempervirens*, which can be up to 100% cover).	No	Dominated by nettle and bramble
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran[2]) shrubs are all present.	Yes	
C	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]) and species indicative of sub-optimal condition[5] make up less than 5% of ground cover.	Yes	
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	No	No scattered scrub present
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	
	Number of criteria passed		2

Condition Assessment Result (out of 5 criteria)	**Condition Assessment Score**	**Score Achieved ×/□**
Passes 5 criteria	Good (3)	X
Passes 3 or 4 criteria	Moderate (2)	X
Passes 2 or fewer criteria	Poor (1)	Yes

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – Native woody species as defined and listed in the Hedgerow Survey Handbook: DEFRA (2007) *Hedgerow Survey Handbook: A standard procedure for local surveys in the UK.* 2nd ed. [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk).

Footnote 2 - See gov.uk standing advice on ancient and veteran species. Available from:

Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)	and
Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)	

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

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

Footnote 5 - Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, tree-of-heaven *Alianthus altissima*, holm oak *Quercus ilex*, European turkey oak *Quercus cerris*, cherry laurel *Prunus laurocerasus*, snowberry *Symphoricarpos* spp., shallon *Gaultheria shallon*, American skunk cabbage *Lysichiton americanus*, buddleia *Buddleja* spp., cotoneaster *Cotoneaster* spp., Spanish bluebell *Hyacinthoides hispanica* and hybrid bluebells *Hyacinthoides x massartiana*. There may be additional relevant species local to the region and or site.

3.3 Objectives

The objectives are:

1. to complete a Biodiversity Net Gain Assessment following the ten 'good practice principles for development' (Baker, 2016., Baker *et al*. 2019) and BS 8683:2021; and
2. to complete the DEFRA Biodiversity Metric 4.0 calculator for the Site.

3.4 Limitations

The accuracy of measurements within the BNG calculation are constrained by the methods of field data collection, and the level of detail within development proposal plans. For the purposes of this study, UK Habitat Classification areas have been measured using a combination of aerial imagery, QGIS mapping and/or illustrative habitat areas on survey plans.

The Condition Assessment was carried out by a suitably experienced ecologist from Focus Environmental Consultants. The month of survey (August 2023) is within the optimal survey period for most habitats and species in England (JNCC, 2010).

Many fauna species become inactive and their field signs less apparent in the winter months. Similarly, some plant species may also become less evident in the winter as a consequence of their annual growth pattern or natural process of die-back to roots, corms, bulbs and tubers.

3.5 Methods

The biodiversity metric was completed following the guidelines of The Biodiversity Metric 4.0 'User Guide' and associated publications including Technical Annex 1 – Condition Assessment Sheets and Methodology, Technical Annex 2 – Technical Information (Natural England, 2023a-f) and UK Habitat Classification Version 2.0 (UKHab Ltd, 2023).

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4. QUALIFICATIONS & EXPERIENCE

Focus Environmental Consultants® has the expertise to provide sure-fire environmental solutions to a wide range of projects. The company ethos forges the highest standards of professional scientific practice with a best value approach for our clients. Our core area of expertise is in the production of specialist environmental reports and advice to support planning applications. Our comprehensive services include Preliminary Ecological Appraisals (PEA), Ecological Impact Assessment (EcIA), Habitat Regulations Assessment (HRA) and fulfilling protected species surveys, licensing and mitigation requirements. Focus Environmental Consultants is a CIEEM Registered Practice, with all ecological staff being members of this professional body. Our flexible approach, range of skills and broad project experience from major infrastructure contracts to small private developments allows us to adapt to your individual requirements. As well as offering a full suite of ecological services, Focus Environmental Consultants can provide expert arboricultural advice and reports and is building an enviable reputation for innovative habitat creation and management solutions. Focus Environmental Consultants is situated in Worcestershire, providing a convenient and central UK location.

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Jennifer is an Associate Ecologist with over nine years' professional experience in ecological consultancy. She holds a BSc (Hons) degree in Wildlife Conservation from the University of Wolverhampton and MSc in Ecology and the Natural Environment from the University of Bristol. Jennifer is experienced in undertaking Preliminary Ecological Appraisals (PEA), Ecological Impact Assessments (EcIA), Habitat Regulations Assessments (HRA) and completing Biodiversity Net Gain (BNG) and UK Habitat Classification Condition Assessments. She is a skilled botanical surveyor (FISC 4) and is experienced in undertaking a range of surveys for protected species including great crested newt, bat, hazel dormice, reptiles and badgers. Jennifer holds Natural England survey licences for great crested newts, bats (Class 2) and hazel dormice. She is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

This report has been checked for quality and content by:

Graham Davison BSc (Hons) MSc MCIEEM MRSB
Graham is an ecologist with over twenty years of experience in the field of applied ecology. He holds a BSc (Hons) degree in Zoology and an MSc with distinction in Law and Environmental Science. Graham's Masters paper on legal and practical implications for mammal reintroductions was published by the IUCN. His ecological experience includes surveys to identify nationally and locally important sites for wildlife, ecological services to local planning authorities and provision of ecological reports to accompany major infrastructure projects, housing schemes, industrial developments and mineral extraction. Graham is a skilled botanical surveyor (FISC 4) specialising in Phase I and Phase II (NVC) Habitat Surveys. Graham has considerable expertise in protected species surveys and licensing, and is a Registered Consultant under the Bat Mitigation Class Licence scheme (BMCL). Graham has appeared and delivered evidence as an expert witness for Planning Appeals and Public Inquiry. Graham has been interviewed for BBC local radio and TV programmes to provide specialist expertise on ecological topics.