

# APPENDIX 4.9 -BIODIVERSITY METRIC 4.0 HABITAT CONDITION ASSESSMENT SHEETS

HAMBLE AIRFIELD HAMBLE LE RICE HAMPSHIRE

**NOVEMBER 2023** 

ON BEHALF OF CEMEX



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## 1.0 INTRODUCTION

LC Ecological Services Limited (LCES) were commissioned by CEMEX UK to conduct baseline and post-intervention habitat condition assessments to support a post-development site restoration plan and associated Biodiversity Net Gain (BNG) assessment for the land at the former Hamble Airfield, Hamble-le-Rice, Hampshire, SO31 4NL (approximate central Grid Ref: SU 47765 07807). This work is required as part of the supporting ecological assessments for a planning application for phased aggregate extraction on the site, including the erection of a processing plant with silt lagoons and associated infrastructure, and post-quarrying restoration of the land.

This report should be read in conjunction with the following documents:

- Proposed Habitats for Site Restoration Plan Hamble Airfield 05.09.2023 (LCES, 2023a)
- Biodiversity Metric 4.0 Hamble Airfield (Phased) 05.09.2023 (LCES, 2023b)
- Ecological appraisal & desk study Hamble Airfield 30.11.2021 (LCES, 2021)
- Environmental Statement for the Former Hamble Airfield Chapter 10 Ecology and Biodiversity (Updated and amended) (CEMEX UK, 2022)

Section 2 of this report details the methodologies adopted for the baseline and post-intervention habitat condition assessments and section 3 provides the full results of each separate assessment. Appendix I includes relevant site photography taken during the baseline habitat condition assessment fieldwork.

## 2.0 METHODOLOGY

### 2.1 Baseline habitat condition assessments

An update site visit and baseline habitat condition assessment was undertaken on 2<sup>nd</sup> August 2023 by senior ecologist Andrew Heideman. This fieldwork involved a detailed assessment of each habitat type present on site using the relevant standard habitat condition assessment sheets, included as Technical Annex 1 of Biodiversity Metric 4.0 (Natural England, 2023). The specific methods detailed on each separate condition assessment sheet were followed and an appropriate score and any relevant supporting notes were recorded against each individual criteria on the sheets. In addition to this, relevant photographic evidence of the baseline habitat conditions was also gathered during the fieldwork.

#### Limitations

The site visit and baseline habitat condition assessment was undertaken in early August which is within the optimal summer period for conducting botanical surveys and assessments of habitat condition. On the date of the site visit the weather conditions were very poor (heavy rain and strong winds) and there were also some accessibility restrictions on-site due to extensive stands of dense and impenetrable bramble (*Rubus fruticosus* agg.). Nevertheless, it is considered that a valid assessment was completed.

### 2.2 Post-intervention habitat condition assessments

Post-intervention habitat condition assessments were undertaken by LCES in October 2023, with input also provided by CEMEX UK, to support and provide justification for the proposed habitat types and associated condition scores as presented in the site restoration plan and associated BNG assessment (LCES, 2023a and 2023b). This work involved a detailed assessment of each proposed and retained/enhanced habitat type in the site restoration scheme using the relevant standard habitat condition assessment sheets, included as Technical Annex 1 of Biodiversity Metric 4.0 (Natural England, 2023). The specific methods detailed on each separate condition assessment sheet were followed and an appropriate score and any relevant supporting notes were recorded against each individual criteria on the sheets, including outline details on the proposed habitat creation and/or management prescriptions considered necessary and appropriate to achieve the targeted condition scores.

## 3.0 RESULTS

## 3.1 Baseline Habitat Condition Assessment Sheets

### 3.1.1 Grassland Habitat

Condition Sheet: GRASSLAN	D Habitat Type (medium, high and very h	igh distinc	ctiveness)
UK Habitat Classification (U	KHab) Habitat Type(s)		
Grassland - Other lowland a	cid grassland		
Site name and location	The former Hamble Airfield, Hamble-le-Rice, Hampshire, SO31 4NL	On-site or off-site	On-site
Limitations (if applicable)	Very poor weather conditions (heavy rain and strong winds) on the date of the assessment. Some accessibility restrictions on-site due to extensive stands of dense and impenetrable bramble ( <i>Rubus fruticosus</i> agg.). However, it is considered that a valid assessment was completed.	Survey referen ce (if relatin g to a wider survey)	N/A
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel referen ce	N/A
Habitat Description			

The vast majority of the grassland habitat recorded on site comprised rank and overgrown swards that were dominated by tussocks of coarse grasses. However, there was also an element of unimproved and more botanically-interesting acid grassland present amongst some sections of the sward, particularly in the northeast region of the site where it appears that there may have been a higher level of wild grazing by deer and rabbits taking place. For more details refer to the Ecological Appraisal document (LCES, 2021).

Condition Assessment	Criteria	Criteri on passed (Yes or No)	Notes (such as justification)
A	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present.  Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	No	The grassland on site is becoming an increasingly poor representation of the identified habitat type, mainly due to longterm neglect of the site, as well as dog and equine fouling. Indicator species of acid grassland, including sheep's sorrel (Rumex acetosella),

## CEMEX UK Habitat Condition Assessment Sheets - Hamble Airfield

1			carly hair grass (Aire
			early hair-grass ( <i>Aira</i> praecox), heath
			speedwell (Veronica
			officinalis) and broom
			fork-moss ( <i>Dicranum</i>
			scoparium), are now
			scarce and mostly
			restricted to the far
			north of the site where
			evidence of wild
			grazing is more
		No	prevalent.
		INO	The vast majority of the sward on site is rank
			and overgrown, far
			exceeding seven
			centimetres in average
			height (refer to
	Sward height is varied (at least 20% of the		appendix I). Some
	sward is less than 7 cm and at least 20% is		areas of shorter sward
В	more than 7 cm) creating microclimates		maintained by wild
	which provide opportunities for insects, birds		deer and rabbit grazing
	and small mammals to live and breed.		are present in the far
			north of the site (refer
			to appendix I),
			although these account
			for less than 20% of the
			total grassland area on site.
		No	There is very limited
		110	cover of bare ground
			across the areas of
			grassland habitat on
			site due to the sward
			being mostly rank with
			significant
			accumulations of
			thatch. There are some
	Cover of bare ground is between 1% and 5%,		minor patches of bare
С	including localised areas, for example, rabbit		ground along pathways used by the public for
	warrens <sup>1</sup> .		recreation and in areas
			where there is
			evidence of wild
			grazing, but it is
			considered that this
			collectively accounts
			for less than 1% cover
			across the whole
			grassland habitat area
	Cover of hyperbon Phanidians and the second	Ma	on site.
D	Cover of bracken <i>Pteridium aquilinum</i> is less	No	Bramble cover across
D	than 20% and cover of scrub (including		the areas of grassland
	bramble <i>Rubus fruticosus</i> agg.) is less than 5%.		habitat on site is

1			
			extensive and it
			continues to increase in
			the absence of any
			management
			intervention.
		Yes	The negative grassland
			indicator
	Combined cover of species indicative of sub-		species creeping thistle
	optimal condition <sup>2</sup> and physical damage (such		(Cirsium arvense) is
	as excessive poaching, damage from		relatively abundant on
	machinery use or storage, damaging levels of		site and forms locally-
	access, or any other damaging management		dominant patches
E	activities) accounts for less than 5% of total		within the sward (refer
	area.		to appendix I).
	If any invasive non-native plant species <sup>3</sup> (as		However, it is not
	listed on Schedule 9 of WCA <sup>4</sup> ) are present, this		considered to account
	criterion is automatically failed.		for more than 5% of
			the total grassland
			habitat area on-site.
Additional Criterion - I	must be assessed for all non-acid grassland		1 2 2
	There are 10 or more vascular plant species	No	A total of five
	per m <sup>2</sup> present, including forbs that are		representative one
	characteristic of the habitat type (species		metre <sup>2</sup> quadrat
	referenced in Footnote 2 and 4 cannot		samples of the
F	contribute towards this count).		grassland vegetation
			on site were recorded
	Note - this criterion is essential for		and each one
	achieving Good condition for non-acid		comprised less than 10
	grassland types only.		vascular plant species.
Essential criteri	on for Good condition achieved (for non-acid	N/A	•
	grassland) (Yes or No)	,	
	Number of criteria passed	1	
		Score	
<b>Condition Assessment</b>	Condition Assessment Score	Achiev	
Result	Condition Assessment Score	ed ×/√	
Acid Grassland Types (	Result out of 5 criteria)	cu ^/ '	
Passes 5 criteria	Good (3)		
	<del>                                     </del>		
Passes 3 or 4 criteria	Moderate (2)	-	
Passes 2 or fewer criteria	a Poor (1)	$\checkmark$	
Non-acid grassland Typ	oes (Result out of 6 criteria)		
Passes 5 or 6 criteria,			
including essential criter	rion Good (3)		
A and additional criterio			
Passes 3 - 5 criteria,			
including essential criter	rion Moderate (2)		
A.	ion inductate (2)		
Passes 2 or fewer criteria	2.		
OR	a,		
	Poor (1)		
Passes 3 or 4 criteria			
excluding criterion A and			
	nt interventions to improve condition score		
N/A			
Notes			

**Footnote 1** – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

**Footnote 2** - Species indicative of sub-optimal condition for this habitat type include: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*. There may be additional relevant species local to the region and or site.

**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, by applying professional judgement.

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

### 3.1.2 Native Hedgerows (H1 and H2, refer to LCES 2021)

## Condition sheet: HEDGEROW Habitat Types

**Habitat Type** 

Native hedgerow with trees

### **Habitat Description**

A total of two established, species-rich native hedgerows were recorded on site, one alongside the northern boundary (H1) and one alongside the north-eastern boundary (H2) (refer to LCES 2021). These hedgerows comprised a good variety of native woody species, including numerous mature standard pedunculate oak (*Quercus robur*) and ash (*Fraxinus excelsior*) trees, and reasonably diverse field layer vegetation which included a number of woodland axiophytes, such as wood sage (*Teucrium scorodonia*), dog's mercury (*Mercurialis perennis*) and bluebell (*Hyacinthoides non-scripta*). The hedgerows ranged from approximately 1.5 to 4 metres in average height and 1.5 to 3.5 metres in average width and appeared to have been left largely unmanaged. Both hedgerows were noted to have a significant number of gaps. For more details refer to LCES 2021.

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	The former Hamble Airfield, Hamble-le-Rice, Hampshire, SO31 4NL	On-site or off-site	On-site
Limitations (if applicable)	Very poor weather conditions (heavy rain and strong winds) on the date of the assessment. Some accessibility restrictions on-site due to extensive stands of dense and impenetrable bramble ( <i>Rubus fruticosus</i> agg.). However, it is considered that a valid assessment was completed.	Survey reference (if relating to a wider survey)	N/A
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel reference	N/A

#### 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 Handbook¹ and Favourable Conservation Status document². 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.

Hedge	erow favoura	ble condition att	ributes		
functi	oings (A, B,	Criteria - the minimum requirements for 'favourable condition'	Description	Criterion passed (Yes or No)	Notes (such as justification)
Core	groups - appl	icable to all hedg	erow types		
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	H1 - Yes H2 - Yes	Both hedgerows exceeding 1.5 metres in average height across their total lengths.
A2.	Width	>1.5 m average along length	(unless it is >1.5 m height).  The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.  Outgrowths (such as blackthorn <i>Prunus spinosa</i> 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).	H1 - Yes H2 - Yes	Both hedgerows exceeding 1.5 metres in average width across their total lengths.
B1.	Gap - hedge base	Gap between ground and base of canopy	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance	H1 - Yes H2 - No	Hedgerow H1 has dense vertical shrubby

		<0.5 m for >90% of length	from the ground to the lowest leafy growth.  Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).		growth from near ground level and therefore meets this criterion.  Hedgerow H2 has numerous significant gaps between mature standard trees with only sparse and 'leggy' shrub growth. It is therefore considered to fail this criterion.
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).	H1 - Yes H2 - No	Hedgerow H1 mostly has dense horizontal shrubby growth, with any gaps comprising less than 10% of the total length.  Hedgerow H2 has numerous significant gaps in its horizontal shrubby layer exceeding 10% of the total length. Some bare gaps between standard trees are approximately five metres or more in length.
C1.	Undisturbe d 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	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	H1 - Yes H2 - Yes	Hedgerow H1 and H2 are both considered to meet this criterion. The ground and perennial vegetation of hedgerow H1 is largely undisturbed, aside from one informal access

		one side of the hedgerow (at least).	value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.		gap used by the public. Hedgerow H2 has some minor disturbance where gaps have been used as access points by deer and the public, as well as a minor amount of fly-tipping. However, the total ground disturbance for hedgerow H2 is considered to be less than 10% of the total hedgerow length.
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 <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	H1 - Yes H2 - Yes	Hedgerows H1 and H2 do not exhibit any signs of significant soil nutrient enrichment.
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 WCA³) 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 <sup>4</sup> , as well as the BSBI website <sup>5</sup> where the 'Online Atlas of the British and Irish Flora' <sup>6</sup> 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 <sup>7</sup> .	H1 - Yes H2 - Yes	Hedgerows H1 and H2 both meet this criterion, although one Turkey oak ( <i>Quercus cerris</i> ) tree was noted in hedgerow H1.
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	H1 - Yes H2 - Yes	Hedgerows H1 and H2 both meet this criterion, although some minor fly-tipping was noted in hedgerow H2.

ı	I		mulable enimeners		
			rubble, or inappropriate management practices (e.g.,		
			excessive hedgerow cutting).		
Addit	ional group -	applicable to he	dgerows 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 <sup>8</sup> ), 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.	H1 - Yes H2 - Yes	Hedgerows H1 and H2 both meet this criterion. Young and mature specimens of pedunculate oak (Quercus robur) and ash (Fraxinus excelsior) were present in both hedgerows and there were numerous mature standard trees present per 20 to 50 metres of both hedgerow lengths.
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.	H1 - Yes H2 - Yes	Hedgerows H1 and H2 both meet this criterion. All hedgerow trees appeared to be in good, healthy and undamaged condition with no significant signs of disease noted.
		ition assessment g	generates a weighting (score) rar	ging from 1 - 3, whic	h is used within
		es for each are set			
Categ		Category Requirements	Metric score		
Good		No more than 2 failures in	3		

	total.	I
	total; <b>AND</b>	
	AND No more than	
	1 failure in any	
	functional	
	group.	
	No more than	
	5 failures in	
	total;	
	AND	
	<u>Does not fail</u>	
	both attributes	
Moderate	in more than	2
Moderate	one functional	-
	group (e.g.,	
	fails attributes	
	A1, A2, B1, C2	
	and E1 =	
	Moderate	
	condition).	
	Fails a total of	
	more than 5	
	attributes;	
	OR	
	Fails both	
	<u>attributes</u> in	
Poor	more than one	1
	functional	
	group (e.g. fails	
	attributes A1,	
	A2, B1 and B2	
	= Poor	
	condition).	
		H1 - 3 (Good)
	Score achieved:	
		H2 - 2 (Moderate)

Suggested enhancement interventions to improve condition score

N/A

#### 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

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#### Habitat Condition Assessment Sheets - Hamble Airfield

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)

#### 3.1.3 Woodland habitat

#### **Condition Sheet: WOODLAND Habitat Type**

UK Habitat Classification (UKHab) Habitat Type(s)

Woodland and forest - Other woodland; broadleaved

#### Habitat Description

Two narrow bands of regenerating broadleaved woodland were recorded adjacent to the northern-western boundaries of the site. The canopies of these woodland stands were generally of a young stage of growth and were mostly dominated by semi-mature specimens of pedunculate oak (*Quercus robur*) and silver birch (*Betula pendula*), together with occasional to rare sycamore (*Acer pseudoplatanus*) ash (*Fraxinus excelsior*) and goat willow (*Salix caprea*). The understory layers largely consisted of a mixture of field maple (*Acer campestre*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*) and blackthorn (*Prunus spinosa*), together with pedunculate oak, sycamore and silver birch saplings. The field layers were generally speciespoor throughout and mostly dominated by ivy (*Hedera helix*), bramble (*Rubus fruticosus agg.*) and bracken (*Pteridium aquilinum*). However, a number of desirable woodland indicators were also present in occasional to rare abundance, including bluebell (*Hyacinthoides non-scripta*), dog's mercury (*Mercurialis perennis*), soft shield-fern (*Polystichum setiferum*) and broad buckler-fern (*Dryopteris dilatata*).

#### <u>ukhab – UK Habitat Classification</u>

This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here:

Woodland Wildlife Toolkit (sylva.org.uk)

IMPORTANT: This biodiversity metric woodland condition assessment must be used to assess woodland being input into the biodiversity metric. The outputs of this condition assessment are not equivalent to, nor are they comparable with the scores from the EWBG condition assessment, because the EWBG assessment has been adapted for the biodiversity metric, including the removal of EWBG Indicator 7 (Proportion of favourable land cover around woodland) and Indicator 14 (Size of woodland), and minor changes to other indicators.

a	The former	On-site or off-	On-site
Site name and location	Hamble Airfield,	site	
	Hamble-le-Rice,	Site	

		Hampshire, SO31 4NL				
Limitatio applicab		Very poor weather conditions (heavy rain and strong winds) on the date of the assessment. Some accessibility restrictions onsite due to extensive stands of dense and impenetrable bramble (Rubus fruticosus agg.). However, it is considered that a valid assessment was completed.	Survey reference (if relating to a wider survey)	N/A		
Grid refe		Approximate central Grid Ref: SU 47765 07807	Habitat parcel reference	N/A		
Conditio	n Assessment Crit	teria			Corre	Notes (such
Indicat or		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicat or	Notes (such as justification )
					3	Young, intermediate and old specimens of pedunculate oak are present and relatively
A	Age distribution of trees  Wild, domestic	Three age- classes <sup>1</sup> present.	Two age- classes <sup>1</sup> present.	One age-class <sup>1</sup> present.	3	well represented across the woodland habitat on site. Although, old specimens of oak were generally infrequent. No evidence

			present in 40% or less of whole woodland <sup>2</sup> .	present in 40% or more of whole woodland <sup>2</sup> .		damage noted. Access into the woodland stands is restricted by dense bramble thickets in most places.
С	Invasive plant species	No invasive species <sup>3</sup> present in woodland.	Rhododendron Rhododendron ponticum or cherry laurel Prunus laurocerasus not present, other invasive species <sup>3</sup> <10% cover.	Rhododendro n or cherry laurel present, or other invasive species <sup>3</sup> >10% cover.	3	Aside from sycamore trees, no other problematic, non-native invasive species were recorded.
D	Number of native tree species	Five or more native tree or shrub species <sup>4</sup> found across woodland parcel.	Three to four native tree or shrub species <sup>4</sup> found across woodland parcel.	Two or less native tree or shrub species <sup>4</sup> across woodland parcel.	3	More than five native tree and shrub species present.
Е	Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native <sup>5</sup> .	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native <sup>5</sup> .	<50% of canopy trees and <50% of understory shrubs are native <sup>5</sup> .	3	Both canopy and understorey layers are dominated by native tree and shrub species.
F	Open space within woodland	10 - 20% of woodland has areas of temporary open space <sup>6.</sup> Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted <sup>7</sup> .	21 - 40% of woodland has areas of temporary open space <sup>6</sup> .	<10% or >40% of woodland has areas of temporary open space <sup>6</sup> . But if woodland <10ha has <10% temporary open space, please see Good category <sup>7</sup> .	2	Some substantial gaps in the canopy and understorey cover were present across the woodland areas on site, accounting for up to 30% of the total wooded areas on site.
G	Woodland regeneration	All three classes present in woodland <sup>8</sup> ; trees	One or two classes only present in	No classes or coppice regrowth	2	Young trees and saplings of native

		4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	woodland <sup>g</sup> .	present in woodland <sup>8</sup> .		species, including pedunculate oak and field maple, were noted, however no native tree or shrub seedlings were observed.
н	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback <sup>9</sup> .	11% to 25% mortality and/or crown dieback or lowrisk pest or disease present9.	Greater than 25% tree mortality and or any highrisk pest or disease present <sup>9</sup> .	2	Some signs of ash dieback disease were noted amongst the mature canopy specimens of ash, although in all cases the extent of the crown dieback was not severe.
I	Vegetation and ground flora	Recognisable NVC plant community <sup>10</sup> at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community <sup>10</sup> at ground layer present.	No recognisable woodland NVC plant community <sup>10</sup> at ground layer present.	1	The woodland field layer vegetation was generally poorly developed and limited in extent with no particular woodland NVC plant communities being identifiable. The field and ground layers were general ly speciespoor throughout and mostly dominated by ivy,

						bramble and bracken. However, a number of desirable woodland indicators were also present low abundance, including bluebell, dog's mercury, butcher's-broom (Ruscus aculeatus), and broad buckler-fern.
J	Woodland vertical structure	Three or more storeys across all survey plots or a complex woodland <sup>11</sup> .	Two storeys across all survey plots <sup>11</sup> .	One or less storey across all survey plots <sup>11</sup> .	2	Only two storeys of vertical woody growth present, comprising a canopy of mature trees and understorey of mature shrubs and younger trees. No further vertical structural complexity was recorded.
К	Veteran trees	Two or more veteran trees <sup>12</sup> per hectare.	One veteran tree <sup>12</sup> per hectare.	No veteran trees <sup>12</sup> present in woodland.	1	No veteran trees were identified within the areas of woodland habitat on site.
L	Amount of deadwood	50% of all survey plots within the woodland parcel have deadwood, such as standing	Between 25% and 50% of all survey plots within the woodland	Less than 25% of all survey plots within the woodland parcel have	1	Very little deadwood, either standing or fallen, was

		deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities <sup>13</sup> .	parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities <sup>13</sup> .	deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities <sup>13</sup> .		noted within the areas of woodland habitat on site.
М	Woodland disturbance	No nutrient enrichment or damaged ground evident <sup>14</sup> .	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground <sup>14</sup> .	More than 1 hectare of nutrient enrichment and or more than 20% of woodland area has damaged ground <sup>14</sup> .	3	No evidence of any significant nutrient enrichment or damaged ground was identified.
			Total Score (out of			29
Conditio	Condition Assessment Result			Condition Asse	ssment	Result
			Score		Achieved Moderate	
Total score >32 (33 to 39)  Total score 26 to 32			Good (3) Moderate (2)		(2)	
	re <26 (13 to 25)			Poor (1)		(2)
		nterventions to imp	prove condition sc			

N/A

#### Footnotes

Footnotes below refer to the EWBG woodland condition assessment methodology: EWBG (No date). Assessing your Woodland's Condition [online]. Available from:

Woodland Wildlife Toolkit (sylva.org.uk)

When applying this condition sheet, good practice would be to use the methodology associated with the EWBG toolkit.

Footnote 1 - See EWBG method INDICATOR 1 for more information. If tree species is not a birch Betula sp., cherry Prunus sp. or Sorbus sp.: 0 - 20 years (Young); 21 - 150 years (Intermediate); and >150 years (Old). For birch, cherry or Sorbus species; 0 - 20 years = Young; 21 - 60 years = Intermediate; >60 years = Old. A recognisable age-class should be a consistent recognisable layer across the woodland or stand being assessed. Presence of a few saplings would not indicate that the woodland has an 'age-class' of young trees.

Footnote 2 - See EWBG method INDICATOR 2 for more information. Browsing pressure is considered to be significant where >20% of vegetation visible within each survey plot shows damage from any type of browsing pressure listed.

Footnote 3 - See EWBG method INDICATOR 3 for more information. Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly.

Check for the presence of all plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), particularly the following invasive non-native species: American skunk cabbage Lysichiton americanus; Himalayan balsam *Impatiens glandulifera*; Japanese knotweed *Reynoutria japonica*; cherry laurel *Prunus laurocerasus*; shallon *Gaultheria shallon*; snowberry *Symphoricarpos albus*; variegated yellow archangel *Lamiastrum galeobdolon subsp. argentatum*; rhododendron *Rhododendron ponticum*; and tree-of-heaven *Alianthus altissima*.

**Footnote 4** - See EWBG method INDICATOR 4 and Table 2 for more information. The number of different native tree or shrub species including young trees and shrubs. A list of commonly found native tree and shrub species is provided in Table 2. Not all species listed are native to all parts of the UK. Note a list of commonly found non-native tree species are also included and should be recorded if present.

**Footnote 5** - See EWBG method INDICATOR 5 and for more information. The abundance of native tree species in upper (>5 m) and understorey (up to 5 m) layers including young trees and shrubs. **Footnote 6** - See EWBG method INDICATOR 6 for more information. Open space within woodland in this context is temporary open space in which trees can be expected to regenerate (for example, glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (for example, tarmac, buildings, rivers). Area is at least 10 m wide with less than 20% covered by shrubs or trees.

Footnote 7 – Given the increased ratio of edge habitat to woodland where the woodland is <10ha.

**Footnote 8** - See EWBG method INDICATOR 8 for more information. This indicator measures regeneration potential of the woodland by considering three classes: seedlings; saplings; and young trees of 4-7 cm DBH. All three classes would fall in the 'young' category of the 'age distribution of trees' indicator, but the regeneration indicator gathers additional information by considering regeneration potential - if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.

**Footnote 9** - See EWBG method INDICATOR 9 for more information and Table 3 for a list of diseases and pests and their risk level.

**Footnote 10** - See EWBG method INDICATOR 10 directing to NVC key for more information. The 'UKHab to NVC translation table' in the UK Habitat Classification resources may also be useful to assess this.

**Footnote 11** – This criterion looks at structural diversity and is useful to understand in conjunction with the age of trees in a woodland. Vertical structure is defined as the number of canopy storeys present. Possible storey values are: 1) Upper; 2) Complex: recorded when the stand is composed of multiple tree heights that cannot easily be stratified into broad height bands (such as upper, middle or lower); 3) Middle; 4) Lower; and 5) Shrub layer. There might be no storeys where the woodland has been felled. See EWBG INDICATOR 11 for more information.

**Footnote 12** - See EWBG method INDICATOR 12 for more information. 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)

**Footnote 13** – See EWBG method INDICATOR 13 for more information. This includes logs, large dead branches on the forest floor and stumps (<1 m tall) >20 cm diameter at narrowest point and >50 cm long. Also includes standing dead trees (>1 m tall) and also deadwood on standing live trees. Diameter is measured at the narrowest point on the stem. Minimum diameter of 20 cm.

**Footnote 14** - See EWBG method INDICATOR 15 for more information. Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery, animal poaching or litter.

#### 3.1.4 Scattered rural trees

### Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Type(s)

Individual trees - Rural trees

#### **Habitat Description**

Scattered trees recorded on site mostly comprising young and semi-mature specimens of pedunculate oak (*Pedunculate oak*), English elm (*Ulmus procera*), cherry (*Prunus sp*), bird cherry (*Prunus padus*), silver birch (*Betula pendula*), ash (*Fraxinus excelsior*), whitebeam (*Sorbus aria* agg.), sycamore (*Acer pseudoplatanus*) and rowan (*Sorbus aucuparia*). These trees were largely recorded in the southern half of the site.

### Individual trees (description applied to the urban or rural environment):

Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

### Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):

Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies must overlap continuously. Groups of urban trees that don't match

the descriptions for woodland may be assessed within this category.

Site name and location	The former Hamble Airfield, Hamble-le- Rice, Hampshire, SO31 4NL	On-site or off-site	On-site
Limitations (if applicable)	Very poor weather conditions (heavy rain and strong winds) on the date of the assessment. Some accessibility restrictions on-site due to extensive stands of dense and impenetrable bramble (Rubus fruticosus agg.). However, it is considered that a valid assessment was completed.	Survey reference (if relating to a wider survey)	N/A
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel reference	N/A
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
А	The tree is a native species (or at least 70% within the block are native species).	Yes	The majority (>70%) of the scattered trees recorded on site are UK native species.
В	The tree canopy is predominantly	Yes	All of the scattered trees assessed on

	continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).		site meet this criterion and have healthy, continuous canopies.
С	The tree is mature (or more than 50% within the block are mature).	Only one of the assessed trees on site meets this criterion. All other assessed trees were either of small or medium size.	A mature pedunculate oak tree adjacent to the eastern boundary with a breast height diameter of approximately 1.4 metres.
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Yes	All of the assessed trees pass this criterion and no evidence of any adverse human impacts was identified.
Е	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Only one of the assessed trees on site meets this criterion. All other assessed trees were either of small or medium size and did not support any obvious ecological niches.	A mature pedunculate oak tree adjacent to the eastern boundary which supported a small amount of deadwood (a number of dead and rotting limbs) with splits and cavities.
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	All of the assessed trees pass this criterion and supported healthy spreading canopies oversailing the vegetation beneath.
Num	ber of criteria passed	23 small trees and 21 medium trees all pass 4 criteria.  1 large tree passes 6 criteria.	

Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved ×/✓		
Passes 5 or 6 criteria	Good (3)	1 large tree achieves a Good (3) condition score.		
Passes 3 or 4 criteria	Moderate (2)	23 small trees and 21 medium trees all pass 4 criteria and achieve a Moderate (2) condition score.		
Passes 2 or fewer criteria	Poor (1)			
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this				
broad habitat type.				
Suggested enhanc	ement interventions t	o improve condition score		

#### **Footnotes**

Footnote 1 - 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:

N/A

Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

### 3.2 Post-intervention Habitat Condition Assessment Sheets

## 3.2.1 Existing / retained acid grassland within the project buffer

	Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)				
UK Habitat Classification (UKHab) Habitat Type(s)  Grassland - Other lowland acid grassland (proposed uplift in condition from (Poor to Moderate))					
Site name and location	The former Hamble Airfield, Hamble-le-Rice, Hampshire, SO31 4NL	On-site or off-site	On-site		
Limitations (if applicable)	N/A	Survey referen ce (if relatin g to a wider survey)	N/A		
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel referen ce	N/A		
Habitat Description / Enhancement Proposals					
Approximately 6.39ha of retained 'Poor' condition acid grassland habitat within the project buffer zone to be					

enhanced to 'Moderate' condition via annual mowing in late-summer (between mid-August and late-

September) together with the thorough removal of all arisings (e.g. via hay bailing). There will also be 2 metre width margins of taller and rougher sward created adjacent to scrub stands by instead mowing these margins and collecting the arisings on a bi-annual rotation. This measure will create more variety of sward structure within the 'stand-off' zones and thereby offer more opportunities and resources for wild fauna.

Condition Assessment	Criteria	Criteri on passed (Yes or No)	Notes (such as justification)
A	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present.  Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	No	The grassland habitat will generally be a poor representation of the identified habitat type and mostly dominated by common species. However, the proposed management regime is expected to result in a substantial improvement in the botanical diversity of the sward and promote the increased establishment of desirable acidic grassland indicator species, such as sheep's sorrel (Rumex acetosella).
В	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 insects, birds and small mammals to live and breed.	Yes	The proposed grassland management regime, in combination with wild grazing by deer and rabbits, is expected to result in a heterogenous sward of varying average height.
С	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens <sup>1</sup> .	Yes	The proposed grassland management regime, in combination with wild grazing by deer and rabbits, as well as trampling by the public using the permissive footpath route, is expected to result in a degree of ground disturbance across this grassland area.
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	No	The existing level of bramble scrub cover across this area of

1				awaaalaa daadii laa
				grassland will be retained, exceeding
				5%.
	Com	abined cover of species indicative of sub-	Yes	With the proposed
		mal condition <sup>2</sup> and physical damage (such	100	grassland management
		xcessive poaching, damage from		regime implemented,
		hinery use or storage, damaging levels of		negative grassland
		ess, or any other damaging management		indicator species such
E		vities) accounts for less than 5% of total		as creeping thistle
	area	l.		(Cirsium arvense) and
	If an	or investigation and matters along an acide 3 (ac		common nettle ( <i>Urtica</i>
		ny invasive non-native plant species <sup>3</sup> (as and on Schedule 9 of WCA <sup>4</sup> ) are present, this		dioica) would be relatively infrequent
		erion is automatically failed.		across the sward.
Additional Criterion - r		be assessed for all non-acid grassland	types	across the swaran
			Yes	It is expected that the
	The	re are 10 or more vascular plant species		proposed management
		m <sup>2</sup> present, including forbs that are		regime will result in a
		racteristic of the habitat type (species		substantial
		renced in Footnote 2 and 4 cannot		improvement in the
F	cont	ribute towards this count).		overall botanical
	Not	e - this criterion is essential for		diversity of the sward, and in almost all cases
		ieving Good condition for non-acid		> 10 vascular plant
		ssland types only.		species will be present
	g. u.	soluna types omy.		per one metre <sup>2</sup> .
Essential criteri	on for	r Good condition achieved (for non-acid	N/A	F
		grassland) (Yes or No)	,	
		Number of criteria passed	4	
<b>Condition Assessment</b>			Score	
Result		Condition Assessment Score	Achiev	
			ed ×/√	
Acid Grassland Types (	Resu			
Passes 5 criteria		Good (3)		
Passes 3 or 4 criteria		Moderate (2)	✓	
Passes 2 or fewer criteria		Poor (1)		
Non-acid grassland Typ	pes (R	Result out of 6 criteria)		
Passes 5 or 6 criteria,		C 1 (2)		
including essential criter A and additional criterion		Good (3)		
Passes 3 - 5 criteria,	иг.			
including essential criterion		Moderate (2)		
A.	1011	110001000 (2)		
Passes 2 or fewer criteria	a;			
OR		Poor (1)		
Passes 3 or 4 criteria		Poor (1)		
excluding criterion A and				
Footnote 1 For evenn	la thi	s could include small, scattered areas of hare	around al	lowing for plant

**Footnote 1** – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

**Footnote 2** - Species indicative of sub-optimal condition for this habitat type include: 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*. There may be additional relevant species local to the region and or site.

**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, by applying professional judgement.

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

## 3.2.2 Restored acid grassland areas across the project site

	Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)  UK Habitat Classification (UKHab) Habitat Type(s)						
Grassland - Other lowland ac	eid grassland (proposed Moderate cond	ition)					
Site name and location  The former Hamble Airfield, Hamble-le-Rice, Hampshire, SO31 4NL  On-site or off-site							
Limitations (if applicable)	N/A	Survey referen ce (if relatin g to a wider survey)	N/A				
Approximate central Grid Ref: SU 47765 Habitat parcel referen ce							

#### Habitat Creation / Management Proposals

Approximately 36.74ha of land across the project area, including within the proposed community access meadow area, to be restored to an acid grassland habitat of moderate botanical value and condition.

The pre-existing topsoil layer on site will be preserved during the quarrying works and then replaced once the extraction voids have been backfilled and returned to former levels. Then these proposed areas of grassland will be created via a combination of sowing a suitable native species meadow seed mixture for acid soils, strewing green hay from an appropriate local source, and natural colonisation and regeneration of the sward from the soil seed bank.

Once the sward has become established, after a period of between 4 and 5 years, it will then be managed via annual mowing in late summer (between mid-August and late-September) with the collection and removal of all of the arisings (e.g. via hay bailing) followed by autumn / winter 'aftermath' grazing by low densities of cattle and/or sheep. There will also be 2 metre width margins of taller and rougher sward created adjacent to scrub stands by leaving these margins unmown and only grazed by livestock each year. This additional measure will create more variety of sward structure within the grassland habitat across the site and thereby offer more opportunities and resources for wild fauna.

Condition Assessment Criteria	Criteri on passed	Notes (such as justification)
-------------------------------	-------------------------	-------------------------------

		(Yes or No)	
A	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present.  Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	No	The grassland habitat will generally be a poor representation of the identified habitat type and mostly dominated by common species. However, there is expected to be a substantial level of botanical diversity in the sward, including multiple desirable grassland indicator species and acidic grassland indicator species such as sheep's sorrel (Rumex acetosella).
В	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 insects, birds and small mammals to live and breed.	Yes	The proposed grassland creation and management regime, in combination with wild grazing by deer and rabbits, is expected to result in a heterogenous sward of varying average height.
С	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens <sup>1</sup> .	Yes	The proposed grassland management regime, in combination with wild grazing by deer and rabbits, as well as some trampling by the public using the community access meadow, is expected to result in a degree of ground disturbance across this grassland area.
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	No	Scattered scrub planting across this area of grassland will exceed 5%.
Е	Combined cover of species indicative of sub- optimal condition <sup>2</sup> 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.	Yes	With the proposed grassland management regime implemented, negative grassland indicator species such as creeping thistle (Cirsium arvense) and common nettle (Urtica

	liste crite	y invasive non-native plant species <sup>3</sup> (as d on Schedule 9 of WCA <sup>4</sup> ) are present, this rion is automatically failed.		dioica) would be relatively infrequent across the sward.	
Additional Criterion - r	nust I	pe assessed for all non-acid grassland			
per r char refer		re are 10 or more vascular plant species m² present, including forbs that are acteristic of the habitat type (species renced in Footnote 2 and 4 cannot ribute towards this count).	Yes	It is expected that the proposed habitat creation and management regime will result in a good level of overall botanical diversity in	
	Note - this criterion is essential for achieving Good condition for non-acid grassland types only.			the sward, and in almost all cases > 10 vascular plant species will be present per one metre <sup>2</sup> .	
Essential criterio	Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)				
		Number of criteria passed	4		
Condition Assessment Result		Condition Assessment Score	Score Achiev ed ×/√		
Acid Grassland Types (	Resul	t out of 5 criteria)			
Passes 5 criteria		Good (3)			
Passes 3 or 4 criteria		Moderate (2)	$\checkmark$		
Passes 2 or fewer criteria	<del>1</del>	Poor (1)			
Non-acid grassland Typ	es (R	esult out of 6 criteria)			
Passes 5 or 6 criteria, including essential criter A and additional criterion		Good (3)			
Passes 3 - 5 criteria, including essential criterion A.		Moderate (2)			
A. Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.		Poor (1)			

**Footnote 1** – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

**Footnote 2** - Species indicative of sub-optimal condition for this habitat type include: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*. There may be additional relevant species local to the region and or site.

**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, by applying professional judgement.

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

### 3.2.3 Creation of scattered scrub habitat across the project site

### **Condition Sheet: SCRUB Habitat Type**

**UK Habitat Classification (UKHab) Habitat Type** 

Heathland and shrub - Hawthorn scrub (proposed Moderate condition)
Heathland and shrub - Gorse scrub (proposed Moderate condition)

#### **Habitat Creation / Management Proposals**

Approximately 2.97 ha of hawthorn dominated scrub and 3.49 ha of gorse scrub will be created across the project area, planted out as scattered stands of varying size and shape, as depicted on the site restoration plan.

The scrub stands will be planted out with the native species mixtures as whips and then enclosed with stock fencing to ensure that the whips are protected from both wild and livestock grazing on the site. Planting and aftercare of the scrub whips will all follow horticultural best practice methods to ensure successful establishment of the habitat.

Site name and location	The former Hamble Airfield, Hamble-le- Rice, Hampshire, SO31 4NL	On-site or off-site	On-site
Limitations (if applicable)	N/A	Survey reference (if relating to a wider survey)	N/A
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel reference	N/A
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justificatio n)
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 <sup>1</sup> , with no single species comprising more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	Yes	All proposed scrub planting will comprise 100% native species.
В	Seedlings, saplings, young shrubs and mature (or ancient or veteran²) shrubs are all present.	Yes	At the end of the target managemen t period it is expected that well-

			established scrub habitat will have formed, including a full range of growth stages.
С	There is an absence of invasive non-native plant species <sup>3</sup> (as listed on Schedule 9 of WCA <sup>4</sup> ) and species indicative of sub-optimal condition <sup>5</sup> make up less than 5% of ground cover.	Yes	Any invasive species establishing within the created scrub stands will be appropriate ly eradicated during annual managemen t.
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Yes	1.5 metre buffer margins of uncut grass will be left surrounding all created scrub stands to allow scrub edge vegetation to form.
Е	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	It is not considered that this will be achievable within the target managemen t period and the scrub planting has not been designed to incorporate rides and clearings.

Number of criteria passed				
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved ×/√		
Passes 5 criteria	Good (3)			
Passes 3 or 4 criteria	Moderate (2)	<b>✓</b>		
Passes 2 or fewer criteria	Poor (1)			

Suggested enhancement interventions to improve condition score

#### N/A

#### **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.

## 3.2.4 Existing / retained native hedgerow H2

#### **Condition sheet: HEDGEROW Habitat Types**

#### **Habitat Type**

Native hedgerow with trees (proposed uplift in condition from 'Woderate' to 'Good)

#### **Habitat Enhancement Proposals**

Native hedgerow H2 will be enhanced via gap planting using a variety of native woody shrub species and by implementing a suitable low intensity management regime, comprising light bi-annual flailing with the hedgerow being sculpted into a rounded A-shape during flailing.

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	The former Hamble Airfield, Hamble-le-	On-site or	On-site
---------------	--	------------	---------

location	Rice, Hampshire, SO31 4NL	off-site	
	N/A	Survey	N/A
		reference	
Limitations (if		(if	
applicable)		relating	
applicable		to a	
		wider	
		survey)	
	Approximate central Grid Ref: SU 47765	Habitat	N/A
Grid reference	07807	parcel	
		reference	

#### **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 Handbook¹ and Favourable Conservation Status document². 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.

Hedg	Hedgerow favourable condition attributes					
funct group C, D a	pings (A, B, and E)	Criteria - the minimum requirements for 'favourable condition'	Description  Criterion passed (Yes or No)		Notes (such as justification)	
Core	groups - appl	icable to all hedg				
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		Hedgerow H2 already meets this criterion.
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 <i>Prunus spinosa</i> suckers) are only included in the width estimate when they are >0.5 m in height.	Yes		Hedgerow H2 already meets this criterion.

			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).		
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	The proposed gap planting using native shrub species will ensure that Hedgerow H2 has continuous dense vertical shrubby growth from near ground level along the majority of its length and therefore meets this criterion.
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	The proposed gap planting using native shrub species will ensure that Hedgerow H2 has continuous dense shrubby growth along the majority of its length and therefore meets this criterion.
C1.	Undisturbe d 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,	Yes	Hedgerow H2 already meets this criterion.

			heavily trodden footpaths,		
			poached ground etc. can limit available habitat niches.		
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 <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	Yes	Hedgerow H2 already meets this criterion.
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 WCA³) 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 <sup>4</sup> , as well as the BSBI website <sup>5</sup> where the 'Online Atlas of the British and Irish Flora' <sup>6</sup> contains an up-todate list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website <sup>7</sup> .	Yes	Hedgerow H2 already meets this criterion.
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	Hedgerow H2 already meets this criterion.
Addit	ional group - a	pplicable to hedge	erows 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 <sup>8</sup> ), and there is on average at least one mature, ancient or	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.	Yes	Hedgerow H2 already meets this criterion.

		veteran tree present per 20 - 50m of hedgerow. At least 95% of hedgerow		Yes	Hedgerow H2 already meets
E2.	Tree health	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.		this criterion.

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.

Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

Habitat Condition Assessment Sheets - Hamble Airfield
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).  George which all (Good)
Score achieved:
Suggested enhancement interventions to improve condition score
N/A 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) <i>Definition of Favourable Conservation Status for Hedgerows</i> . [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

# 3.2.5 Native hedgerow creation

### **Condition sheet: HEDGEROW Habitat Types**

#### **Habitat Type**

Native hedgerow with trees (proposed 'Good' condition)

#### **Habitat Enhancement Proposals**

Creation of approximately 0.97 kilometres of native hedgerow on site, comprising a new hedgerow along the entire south-east boundary of the site, and another across the north-eastern corner of the site (enclosing the 'community access meadow' area). The new hedgerow planting will incorporate a diverse range of native shrubs, as well as native standard trees (refer to the planting scheme included in the site restoration plan). This hedgerow creation will be a substantial long-term enhancement to the site, improving habitat connectivity both on and off-site and providing a valuable resource for wild fauna.

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	The former Hamble Airfield, Hamble-le-	On-site or	On-site
location	Rice, Hampshire, SO31 4NL	off-site	
	N/A	Survey	N/A
		reference	
Limitations (if		(if	
Limitations (if		relating	
applicable)		to a	
		wider	
		survey)	
	Approximate central Grid Ref: SU 47765	Habitat	N/A
Grid reference	07807	parcel	
		reference	

#### **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.

Hedg	Hedgerow favourable condition attributes							
Attributes and functional groupings (A, B, C, D and E)  Criteria - the minimum requirements for 'favourable condition'		minimum requirements for 'favourable	Description		Criterion passed (Yes or No)	Notes (such as justification)		
Core	groups - appl	icable to all hedg	erow types					
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	Yes		Expected to meet this criterion within the target management		

			isolated trees.		period. The
			isolated trees.		planted
			Newly laid or coppiced		hedgerow
			hedgerows are indicative of		development
			good management and pass		will be
			this criterion for up to a		monitored
			maximum of four years (if		annually, and
			undertaken according to good		targeted
			practice).		management
			practice).		prescriptions
			A newly planted hedgerow		implemented as
			does not pass this criterion		and when
			(unless it is >1.5 m height).		required.
				Yes	
			The average width of woody	res	Expected to
			growth estimated at the widest		meet this
			point of the canopy, excluding		criterion within
			gaps and isolated trees.		the target
			Outgrowths (such as		management
			Outgrowths (such as		period. The
			blackthorn <i>Prunus spinosa</i>		planted
		. 1 5	suckers) are only included in		hedgerow
A2.	Width	>1.5 m average	the width estimate when they		development
		along length	are >0.5 m in height.		will be monitored
			I aid commissed out and namely		
			Laid, coppiced, cut and newly		annually, and
			planted hedgerows are		targeted
			indicative of good management		management
			and pass this criterion for up to		prescriptions
			a maximum of four years (if		implemented as
			undertaken according to good		and when
			practice).	V	required.
				Yes	Expected to
					meet this
					criterion within
			ml · · · · · · · · · · · · · · · · · · ·		the target
			This is the vertical 'gappiness'		management
			of the woody component of the		period. The
		Gap between	hedgerow, and its distance		planted
	Com	ground and	from the ground to the lowest		hedgerow
B1.	Gap -	base of canopy	leafy growth.		development
	hedge base	<0.5 m for	Contain avantions to this		will be
		>90% of length	Certain exceptions to this		monitored
			criterion are acceptable (see		annually, and
			page 65 of the Hedgerow		targeted
			Survey Handbook).		management
					prescriptions
					implemented as and when
		Canamala	This is the honizantal	Voc	required.
	Gap -	Gaps make up <10% of total	This is the horizontal	Yes	Expected to meet this
B2.	hedge		'gappiness' of the woody		
ı БZ.	canopy	length; and	component of the hedgerow.		criterion within
22.	canopy	Ma aanaa			
	continuity	No canopy gaps >5 m	Gaps are complete breaks in the woody canopy (no matter		the target management

			how small).		period. The
			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).		planted hedgerow development will be monitored annually, and targeted management prescriptions implemented as and when required. Any significant gaps will be planted up at the earliest opportunity with new native tree or shrub whips.
C1.	Undisturbe d ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: • Measured from outer edge of hedgerow; and • Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow.  Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow.  This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	Yes	Expected to meet this criterion within the target management period. The planted hedgerow development will be monitored annually, and targeted management prescriptions implemented as and when required.
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 <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	Yes	Considered unlikely that there will be any significant nutrient enrichment of the hedgerow vegetation as the site does not adjoin farmland and there are no plans to improve the on-site soils with manures or fertiliser.

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 WCA³) 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 <sup>4</sup> , as well as the BSBI website <sup>5</sup> 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 <sup>7</sup> .	Yes	Hedgerow management will target the removal of any establishing non- native species.
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	Expected to meet this criterion within the target management period. The planted hedgerows will be checked annually for any signs of damage. Any dead or very damaged hedgerow specimens will be replaced at the earliest opportunity with new native tree or shrub whips.
Addit	ional group - a	pplicable to hedge	erows 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 <sup>8</sup> ), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of	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.	No	Impossible to meet this criterion within the target management period.

	hedgerow.			
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.	Yes	Expected to meet this criterion within the target management period. The planted hedgerow trees will be checked annually for any signs of damage. Any dead or very damaged hedgerow tree specimens will be replaced at the earliest opportunity with new native tree whips.

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 with trees					
Category	Category Requirements	Metric score			
Good	No more than 2 failures in total; AND No more than 1 failure in any functional	3			
Moderate	group.  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	1			

Habitat Condition Assessment Sn	eets - namble Alffield	
Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 and B2 = Poor condition).  Score achieved:	3 (Good)	
Suggested enhancement intervention	ons to improve condition	score
N/A Footnotes		
	row Survey Handbook A	standard procedure for local surveys in the
UK. [online] Available on:	ow carvey rianabook. 71	standard procedure for local surveys in the
layout		
(hedgelink.org.uk		<del>-</del>
1	0000) B ( iii	
[online] Available on:	2020) Definition of Favou	rable Conservation Status for Hedgerows.
Definition of Favourable Conservatio	n Status for Hedgerows	
- RP2943 (naturalengland.org.uk)	ir otatas for ricagorows	-
Footnote 3 – Wildlife and Countrysic	de Act 1981 (as amended)	).
Footnote 4 – CHEFFINGS, C. M. et		
Species Status 7: 1-116. [online] Ava		
The Vascular Plant Red Data List for	Great Britain (Species St	<u>atus</u>
No. 7)   JNCC Resource Hub	/ OF DOLTAIN AND IDEL	AND (DCDI) Definitions wild notice or
alien? [online] Available on:	Y OF BRITAIN AND IRELA	AND (BSBI). Definitions: wild, native or
Definitions: wild, native or alien? – B	otanical Society of	
Britain & Ireland (bsbi.org)	otarnoar cooloty or	-
	ecords Centre (BRC) (202	(2) Online Atlas of the British and Irish
Flora. [online] Available on:		
Acknowledgements   Online Atlas of	the British and Irish	
Flora (brc.ac.uk)	OLEO OEODETADIAT (OL	- DNIN(OO) (OOOO) A 'labla
Footnote 7 – GB NON-NATIVE SPE	CIES SECRETARIAT (GI	BNNSS) (2022) Available on:
Home » NNSS (nonnativespecies.org)		<u>-</u>
Footnote 8 – See gov.uk standing a	dvice on ancient and veter	ran trees. Available from:
Keepers of time: ancient and native		
England (publishing.service.gov.uk)		<del>-</del>
and		
Ancient woodland, ancient trees and		
making planning decisions - GOV.Uh	<u>( (www.gov.uk)</u>	

# 3.2.6 Existing / retained woodland habitat

### **Condition Sheet: WOODLAND Habitat Type**

UK Habitat Classification (UKHab) Habitat Type(s)

Woodland and forest - Other woodland; broadleaved (proposed uplift in condition from 'Woderate' to Fairly Good')

### **Habitat Enhancement Proposals**

Approximately 0.48ha of the existing broadleaved woodland habitat on site (the vast majority) will be retained and enhanced to a 'Fairly Good' condition via a suite of measures, including clearance of bramble (*Rubus fruticosus* agg.) thickets, gap planting using a suitable mixture of native tree and shrub species, provision of deadwood habitat including log and brushwood heaps and loggeries or log pyramids, and some minor coppicing works and removal of some non-native species such as sycamore (*Acer pseudoplatanus*).

It is not considered possible to enhance this habitat type to 'Good' condition within the target time period, however a general improvement in overall condition is considered to be achievable if measures are implemented.

#### ukhab - UK Habitat Classification

This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here:

## Woodland Wildlife Toolkit (sylva.org.uk)

IMPORTANT: This biodiversity metric woodland condition assessment must be used to assess woodland being input into the biodiversity metric. The outputs of this condition assessment are not equivalent to, nor are they comparable with the scores from the EWBG condition assessment, because the EWBG assessment has been adapted for the biodiversity metric, including the removal of EWBG Indicator 7 (Proportion of favourable land cover around woodland) and Indicator 14 (Size of woodland), and minor changes to other indicators.

Site name and location	The former Hamble Airfield, Hamble-le-Rice, Hampshire, SO31 4NL	On-site or off- site	On-site					
Limitations (if applicable)	N/A	Survey reference (if relating to a wider survey)	N/A					
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel reference	N/A					
Condition Assessment Cri	Condition Assessment Criteria							
				Score	Notes (such			

Indicat or		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicat or	Notes (such as justification )
A	Age distribution of trees	Three age- classes <sup>1</sup> present.	Two age- classes <sup>1</sup> present.	One age-class <sup>1</sup> present.	3	The retained woodland habitat already achieves 'Good' on

						this criterion.
В	Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland <sup>2</sup> .	Evidence of significant browsing pressure is present in 40% or less of whole woodland <sup>2</sup> .	Evidence of significant browsing pressure is present in 40% or more of whole woodland <sup>2</sup> .	3	The retained woodland habitat already achieves 'Good' on this criterion.
С	Invasive plant species	No invasive species <sup>3</sup> present in woodland.	Rhododendron Rhododendron ponticum or cherry laurel Prunus laurocerasus not present, other invasive species <sup>3</sup> <10% cover.	Rhododendro n or cherry laurel present, or other invasive species <sup>3</sup> >10% cover.	3	The retained woodland habitat already achieves 'Good' on this criterion.
D	Number of native tree species	Five or more native tree or shrub species <sup>4</sup> found across woodland parcel.	Three to four native tree or shrub species <sup>4</sup> found across woodland parcel.	Two or less native tree or shrub species <sup>4</sup> across woodland parcel.	3	The retained woodland habitat already achieves 'Good' on this criterion.
Е	Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native <sup>5</sup> .	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native <sup>5</sup> .	<50% of canopy trees and <50% of understory shrubs are native <sup>5</sup> .	3	The retained woodland habitat already achieves 'Good' on this criterion.
F	Open space within woodland	10 - 20% of woodland has areas of temporary open space <sup>6.</sup> Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted <sup>7</sup> .	21 - 40% of woodland has areas of temporary open space <sup>6</sup> .	<10% or >40% of woodland has areas of temporary open space <sup>6</sup> . But if woodland <10ha has <10% temporary open space, please see Good category <sup>7</sup> .	3	Proposed gap planting with native trees and shrubs will improve the score to 'Good' on this criterion.
G	Woodland regeneration	All three classes present in woodland8; trees	One or two classes only present in	No classes or coppice regrowth	3	The proposed management

		4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	woodland <sup>g</sup> .	present in woodland <sup>8</sup> .		and enhancemen t measures should help to promote more variety in woodland regeneration classes and more seedlings.
н	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback9.	11% to 25% mortality and/or crown dieback or lowrisk pest or disease present9.	Greater than 25% tree mortality and or any highrisk pest or disease present9.	2	This condition criterion is unlikely to be improved within the target management period.
I	Vegetation and ground flora	Recognisable NVC plant community <sup>10</sup> at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community <sup>10</sup> at ground layer present.	No recognisable woodland NVC plant community <sup>10</sup> at ground layer present.	1	This condition criterion is unlikely to be improved within the target management period.
J	Woodland vertical structure	Three or more storeys across all survey plots or a complex woodland <sup>11</sup> .	Two storeys across all survey plots <sup>11</sup> .	One or less storey across all survey plots <sup>11</sup> .	2	This condition criterion is unlikely to be improved within the target management period.
К	Veteran trees	Two or more veteran trees <sup>12</sup> per hectare.	One veteran tree <sup>12</sup> per hectare.	No veteran trees <sup>12</sup> present in woodland.	1	This condition criterion is impossible to improve within the target management period.
L	Amount of deadwood	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such	Less than 25% of all survey plots within the woodland parcel have deadwood,	2	The proposed management and enhancemen t measures will provide

		dead branches and or stems, branch stubs and stumps, or an abundance of small cavities <sup>13</sup> .	as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities <sup>13</sup> .	such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities <sup>13</sup> .		a significant increase in ground-level deadwood habitat across the retained woodland areas.
М	Woodland disturbance	No nutrient enrichment or damaged ground evident <sup>14</sup> .	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground <sup>14</sup> .	More than 1 hectare of nutrient enrichment and or more than 20% of woodland area has damaged ground <sup>14</sup> .	3	The retained woodland habitat already achieves 'Good' on this criterion.
	_		Total Score (out o	condition Asse	ssment	Result
Condition	n Assessment Res	ult		Score		Achieved
Total score >32 (33 to 39)				Good (3)		Moderate
Total score 26 to 32			Moderate (2)		(2) or 'Fairly	
Total score <26 (13 to 25)				Poor (1)		Good' (improvem ent on baseline condition score)

#### **Footnotes**

Footnotes below refer to the EWBG woodland condition assessment methodology: EWBG (No date). Assessing your Woodland's Condition [online]. Available from:

Woodland Wildlife Toolkit (sylva.org.uk)

When applying this condition sheet, good practice would be to use the methodology associated with the EWBG toolkit.

**Footnote 1** - See EWBG method INDICATOR 1 for more information. If tree species is not a birch *Betula* sp., cherry *Prunus* sp. or *Sorbus* sp.: 0 – 20 years (Young); 21 - 150 years (Intermediate); and >150 years (Old). For birch, cherry or *Sorbus* species; 0 - 20 years = Young; 21 - 60 years =Intermediate; >60 years = Old. A recognisable age-class should be a consistent recognisable layer across the woodland or stand being assessed. Presence of a few saplings would not indicate that the woodland has an 'age-class' of young trees.

**Footnote 2** - See EWBG method INDICATOR 2 for more information. Browsing pressure is considered to be significant where >20% of vegetation visible within each survey plot shows damage from any type of browsing pressure listed.

**Footnote 3** - See EWBG method INDICATOR 3 for more information. Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly.

Check for the presence of all plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), particularly the following invasive non-native species: American skunk cabbage *Lysichiton americanus*; Himalayan balsam *Impatiens glandulifera*; Japanese knotweed *Reynoutria japonica*; cherry laurel *Prunus laurocerasus*; shallon *Gaultheria shallon*; snowberry *Symphoricarpos albus*; variegated yellow archangel *Lamiastrum galeobdolon subsp. argentatum*; rhododendron *Rhododendron ponticum*; and tree-of-heaven *Alianthus altissima*.

**Footnote 4** - See EWBG method INDICATOR 4 and Table 2 for more information. The number of different native tree or shrub species including young trees and shrubs. A list of commonly found native tree and shrub species is provided in Table 2. Not all species listed are native to all parts of the UK. Note a list of commonly found non-native tree species are also included and should be recorded if present.

**Footnote 5** - See EWBG method INDICATOR 5 and for more information. The abundance of native tree species in upper (>5 m) and understorey (up to 5 m) layers including young trees and shrubs. **Footnote 6** - See EWBG method INDICATOR 6 for more information. Open space within woodland in this context is temporary open space in which trees can be expected to regenerate (for example, glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (for example, tarmac, buildings, rivers). Area is at least 10 m wide with less than 20% covered by shrubs or trees.

Footnote 7 – Given the increased ratio of edge habitat to woodland where the woodland is <10ha.

**Footnote 8** - See EWBG method INDICATOR 8 for more information. This indicator measures regeneration potential of the woodland by considering three classes: seedlings; saplings; and young trees of 4-7 cm DBH. All three classes would fall in the 'young' category of the 'age distribution of trees' indicator, but the regeneration indicator gathers additional information by considering regeneration potential - if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.

**Footnote 9** - See EWBG method INDICATOR 9 for more information and Table 3 for a list of diseases and pests and their risk level.

**Footnote 10** - See EWBG method INDICATOR 10 directing to NVC key for more information. The 'UKHab to NVC translation table' in the UK Habitat Classification resources may also be useful to assess this

**Footnote 11** – This criterion looks at structural diversity and is useful to understand in conjunction with the age of trees in a woodland. Vertical structure is defined as the number of canopy storeys present. Possible storey values are: 1) Upper; 2) Complex: recorded when the stand is composed of multiple tree heights that cannot easily be stratified into broad height bands (such as upper, middle or lower); 3) Middle; 4) Lower; and 5) Shrub layer. There might be no storeys where the woodland has been felled. See EWBG INDICATOR 11 for more information.

**Footnote 12** - See EWBG method INDICATOR 12 for more information. 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)

**Footnote 13** – See EWBG method INDICATOR 13 for more information. This includes logs, large dead branches on the forest floor and stumps (<1 m tall) >20 cm diameter at narrowest point and >50 cm long. Also includes standing dead trees (>1 m tall) and also deadwood on standing live trees. Diameter is measured at the narrowest point on the stem. Minimum diameter of 20 cm.

**Footnote 14** - See EWBG method INDICATOR 15 for more information. Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery, animal poaching or litter.

#### 3.2.7 Woodland habitat creation

#### **Condition Sheet: WOODLAND Habitat Type**

UK Habitat Classification (UKHab) Habitat Type(s)

Woodland and forest - Other woodland; broadleaved (proposed 'Moderate' condition)

#### **Habitat Creation / Management Proposals**

Approximately 2.88ha of broadleaved woodland planting on the site using a suitable mix of native tree and shrub species that are typical of an acid pedunculate oak (*Quercus robur*) / silver birch (*Betula pendula*) woodland community. This planting will be located in the far north of the site alongside the northern, northeastern and north-western boundaries (as depicted on the site restoration plan) and this will bolster and enhance existing woodland habitat connectivity both on and off site.

The new woodland stands will be planted out with the native species mixtures as whips and then enclosed with stock fencing to ensure that the whips are protected from both wild and livestock grazing on the site. Planting and aftercare of the whips will all follow horticultural best practice methods to ensure successful establishment of the habitat.

The woodland planting blocks will be managed, maintained and enhanced via a suite of measures, including clearance of any bramble (*Rubus fruticosus* agg.) thickets and or dense stands of bracken (*Pteridium aquilinum*) or common nettle (*Urtica dioica*), minor coppicing works and removal of any garden escapes or other non-native species such as sycamore (*Acer pseudoplatanus*), provision of deadwood habitat including log and brushwood heaps and loggeries or log pyramids.

#### ukhab - UK Habitat Classification

This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here:

#### Woodland Wildlife Toolkit (sylva.org.uk)

IMPORTANT: This biodiversity metric woodland condition assessment must be used to assess woodland being input into the biodiversity metric. The outputs of this condition assessment are not equivalent to, nor are they comparable with the scores from the EWBG condition assessment, because the EWBG assessment has been adapted for the biodiversity metric, including the removal of EWBG Indicator 7 (Proportion of favourable land cover around woodland) and Indicator 14 (Size of woodland), and minor changes to other indicators.

Site name and location	The former Hamble Airfield, Hamble-le-Rice, Hampshire, SO31 4NL	On-site or off- site	On-site
Limitations (if applicable)	N/A	Survey reference (if relating to a wider survey)	N/A
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel reference	N/A
Condition Assessment Crit	teria		

Indicat or		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicat or	Notes (such as justification )
A	Age distribution of trees	Three age- classes <sup>1</sup> present.	Two age- classes <sup>1</sup> present.	One age-class <sup>1</sup> present.	1	It is considered only possible to achieve one tree age class (small / young) within the target management period where specimens are grown from whips.
В	Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland <sup>2</sup> .	Evidence of significant browsing pressure is present in 40% or less of whole woodland <sup>2</sup> .	Evidence of significant browsing pressure is present in 40% or more of whole woodland <sup>2</sup> .	3	All new woodland planting will be protected with stock fencing which will prevent any browsing damage.
С	Invasive plant species	No invasive species <sup>3</sup> present in woodland.	Rhododendron Rhododendron ponticum or cherry laurel Prunus laurocerasus not present, other invasive species <sup>3</sup> <10% cover.	Rhododendro n or cherry laurel present, or other invasive species <sup>3</sup> >10% cover.	3	The new woodland planting will be checked on an annual basis for presence of any invasive plant species and these will be appropriatel y eradicated wherever they are encountered.
D	Number of native tree species	Five or more native tree or shrub species <sup>4</sup> found across woodland parcel.	Three to four native tree or shrub species <sup>4</sup> found across woodland parcel.	Two or less native tree or shrub species <sup>4</sup> across woodland parcel.	3	The proposed woodland planting mixture will comprise > five native tree and shrub

						species and there will regularly be > five native woody species present across each planting block.
Е	Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native <sup>5</sup> .	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native <sup>5</sup> .	<50% of canopy trees and <50% of understory shrubs are native <sup>5</sup> .	3	The proposed woodland planting mixture will comprise > five native tree and shrub species and there will regularly be > five native woody species present across each planting block.
F	Open space within woodland	10 - 20% of woodland has areas of temporary open space <sup>6.</sup> Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted <sup>7</sup> .	21 - 40% of woodland has areas of temporary open space <sup>6</sup> .	<10% or >40% of woodland has areas of temporary open space <sup>6</sup> . But if woodland <10ha has <10% temporary open space, please see Good category <sup>7</sup> .	3	The entire woodland habitat resource on the restored site (including both the existing stands and the new planting) will be substantially below 10ha in total area and any temporary open spaces will be < 20% in total.
G	Woodland regeneration	All three classes present in woodland <sup>8</sup> ; trees 4 - 7 cm	One or two classes only present in woodland <sup>8</sup> .	No classes or coppice regrowth present in	3	At the end of the target management period it is

		Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.		woodland <sup>8</sup> .		considered that all three woodland regeneration classes could potentially be present amongst the new planting. This aspect will be monitored and natural regeneration of native tree and shrub species within the new woodland planting blocks will be encouraged wherever possible via clearance of bramble and coppice management techniques.
Н	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback <sup>9</sup> .	11% to 25% mortality and/or crown dieback or low- risk pest or disease present <sup>9</sup> .	Greater than 25% tree mortality and or any high- risk pest or disease present <sup>9</sup> .	3	The health of all planted specimens will be monitored on an annual basis and any dead or severely diseased specimens will be removed and replaced. Ash (Fraxinus excelsior), which is highly susceptible to ash dieback

						hus fraxineus), will not be
						incorporated within the proposed woodland planting mixture.
I	Vegetation and ground flora	Recognisable NVC plant community <sup>10</sup> at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community <sup>10</sup> at ground layer present.	No recognisable woodland NVC plant community <sup>10</sup> at ground layer present.	1	It is considered unlikely that a recognisable NVC woodland plant community will be established within the target management period. Although the botanical development of the created woodland blocks will be monitored at regular intervals during the target management period.
J	Woodland vertical structure	Three or more storeys across all survey plots or a complex woodland <sup>11</sup> .	Two storeys across all survey plots <sup>11</sup> .	One or less storey across all survey plots <sup>11</sup> .	2	It is considered that a distinct tree and shrub stratum will likely be achieved by the end of the target management period.

		veteran trees <sup>12</sup>	tree <sup>12</sup> per	trees <sup>12</sup>		condition
		per hectare.	hectare.	present in woodland.		criterion is impossible
				woodiand.		to achieve
						within the
						target management
						period.
L	Amount of deadwood	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities <sup>13</sup> .	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of	2	A significant amount of ground-level deadwood habitat will be created across the new woodland planting areas.
			small cavities <sup>13</sup> .	small cavities <sup>13</sup> .		
M	Woodland disturbance	No nutrient enrichment or damaged ground evident <sup>14</sup> .	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground <sup>14</sup> .	More than 1 hectare of nutrient enrichment and or more than 20% of woodland area has damaged ground <sup>14</sup> .	3	No significant nutrient enrichment or ground damage would be expected during the target management period as the woodland planting blocks will be secured with stock fencing and the site does not adjoin any intensively managed agricultural land.
Condition	n Assassment Bee		Total Score (out 0)	Condition Asse	ssment	Result
Condition	n Assessment Res	urt		Score		Achieved

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Total score >32 (33 to 39)	Good (3)	Moderate
Total score 26 to 32	Moderate (2)	(2)
Total score <26 (13 to 25)	Poor (1)	

**Footnotes** 

Footnotes below refer to the EWBG woodland condition assessment methodology: EWBG (No date). *Assessing your Woodland's Condition* [online]. Available from:

Woodland Wildlife Toolkit (sylva.org.uk)

When applying this condition sheet, good practice would be to use the methodology associated with the EWBG toolkit.

**Footnote 1** - See EWBG method INDICATOR 1 for more information. If tree species is not a birch *Betula* sp., cherry *Prunus* sp. or *Sorbus* sp.: 0 – 20 years (Young); 21 - 150 years (Intermediate); and >150 years (Old). For birch, cherry or *Sorbus* species; 0 - 20 years = Young; 21 - 60 years =Intermediate; >60 years = Old. A recognisable age-class should be a consistent recognisable layer across the woodland or stand being assessed. Presence of a few saplings would not indicate that the woodland has an 'age-class' of young trees.

**Footnote 2** - See EWBG method INDICATOR 2 for more information. Browsing pressure is considered to be significant where >20% of vegetation visible within each survey plot shows damage from any type of browsing pressure listed.

**Footnote 3** - See EWBG method INDICATOR 3 for more information. Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly.

Check for the presence of all plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), particularly the following invasive non-native species: American skunk cabbage *Lysichiton americanus*; Himalayan balsam *Impatiens glandulifera*; Japanese knotweed *Reynoutria japonica*; cherry laurel *Prunus laurocerasus*; shallon *Gaultheria shallon*; snowberry *Symphoricarpos albus*; variegated yellow archangel *Lamiastrum galeobdolon subsp. argentatum*; rhododendron *Rhododendron ponticum*; and tree-of-heaven *Alianthus altissima*.

**Footnote 4** - See EWBG method INDICATOR 4 and Table 2 for more information. The number of different native tree or shrub species including young trees and shrubs. A list of commonly found native tree and shrub species is provided in Table 2. Not all species listed are native to all parts of the UK. Note a list of commonly found non-native tree species are also included and should be recorded if present.

**Footnote 5** - See EWBG method INDICATOR 5 and for more information. The abundance of native tree species in upper (>5 m) and understorey (up to 5 m) layers including young trees and shrubs. **Footnote 6** - See EWBG method INDICATOR 6 for more information. Open space within woodland in this context is temporary open space in which trees can be expected to regenerate (for example, glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (for example, tarmac, buildings, rivers). Area is at least 10 m wide with less than 20% covered by shrubs or trees.

Footnote 7 – Given the increased ratio of edge habitat to woodland where the woodland is <10ha.

**Footnote 8** - See EWBG method INDICATOR 8 for more information. This indicator measures regeneration potential of the woodland by considering three classes: seedlings; saplings; and young trees of 4-7 cm DBH. All three classes would fall in the 'young' category of the 'age distribution of trees' indicator, but the regeneration indicator gathers additional information by considering regeneration potential - if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.

**Footnote 9** - See EWBG method INDICATOR 9 for more information and Table 3 for a list of diseases and pests and their risk level.

**Footnote 10** - See EWBG method INDICATOR 10 directing to NVC key for more information. The 'UKHab to NVC translation table' in the UK Habitat Classification resources may also be useful to assess this.

**Footnote 11** – This criterion looks at structural diversity and is useful to understand in conjunction with the age of trees in a woodland. Vertical structure is defined as the number of canopy storeys present. Possible storey values are: 1) Upper; 2) Complex: recorded when the stand is composed of multiple tree heights that cannot easily be stratified into broad height bands (such as upper, middle or lower); 3) Middle; 4) Lower; and 5) Shrub layer. There might be no storeys where the woodland has been felled. See EWBG INDICATOR 11 for more information.

**Footnote 12** - See EWBG method INDICATOR 12 for more information. 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)

**Footnote 13** – See EWBG method INDICATOR 13 for more information. This includes logs, large dead branches on the forest floor and stumps (<1 m tall) >20 cm diameter at narrowest point and >50 cm long. Also includes standing dead trees (>1 m tall) and also deadwood on standing live trees. Diameter is measured at the narrowest point on the stem. Minimum diameter of 20 cm.

**Footnote 14** - See EWBG method INDICATOR 15 for more information. Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery, animal poaching or litter.

# 3.2.8 Scattered rural tree planting

# Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Type(s)

Individual trees - Rural trees (proposed 'Moderate' condition

Habitat Creation / Management Proposals

Planting a total of 41 scattered trees on site using a mix of suitable native species, but mostly pedunculate oak.

The new trees will be planted out as whips and each enclosed with stock fencing to ensure that the whips are protected from both wild and livestock grazing on the site. Planting and aftercare of the whips will all follow horticultural best practice methods to ensure successful establishment.

#### Individual trees (description applied to the urban or rural environment):

Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

# **Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):**

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

Site name and location	The former Hamble Airfield, Hamble-le- Rice, Hampshire,	On-site or off-site	On-site
	Mice, Hampsinie,		

	S031 4NL		
Limitations (if applicable)	N/A	Survey reference (if relating to a wider survey)	N/A
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel reference	N/A
Condition Assessi	ment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	Yes	All of the proposed scattered tree planting will comprise UK native species, mostly pedunculate oak.
В	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	It is considered that this criterion will be met by the end of the target management period and all planted trees will have developed healthy, continuous canopies.
С	The tree is mature (or more than 50% within the block are mature).	No	This criterion will be impossible to achieve within the target management period.
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Yes	It is expected that all of the new planted trees will pass this criterion and there will be only a very low risk of adverse human impact. This aspect will be monitored during the trial management period and any severely damaged trees will be replaced.
Е	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	It is generally not expected that this criterion will be met within the target management period as the planted trees will not be sufficiently mature specimens to have

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F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	developed such ecological niche features.  It is considered that this criterion will be met by the end of the target management period and all planted trees will have developed healthy, continuous canopies that oversail the vegetation beneath.
Num	ber of criteria passed	4	
Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved ×/✓	
Passes 5 or 6 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)	It is expected that all of the planted scattered trees will pass 4 criteria and achieve a Moderate (2) condition score.	
Passes 2 or fewer criteria	Poor (1)		
broad habitat type.		ition categories are not available for this	

Suggested enhancement interventions to improve condition score

N/A

**Footnotes** 

Footnote 1 - 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)

### 3.2.9 Wetland habitat creation

# **Condition Sheet: POND Habitat Type**

Habitat Type(s)

Lakes - Ponds (non-priority habitat) (proposed 'Woderate' condition)

**Habitat Creation / Management Proposals** 

Creation of three shallow waterbodies (pools), covering a total combined area of approximately 0.8ha of land, which will be planted with a suitable mix of native macrophytic plant species.

Ongoing management of these pools will include annual to biannual cutting and removal of established macrophytic vegetation wherever it is becoming particularly dense, control of competitive species such as bulrush (*Typha latifolia*) and common reed (*Phragmites australis*) where they become established, clearance and removal of undesirable free-floating surface water vegetation (duckweeds (*Lemna spp*) and filamentous algae) using hand nets, removal of any nonnative and invasive plant species where they become established, and periodic removal of silt and organic debris accumulations. There will also be some interaction with and marginal grazing by low densities of livestock for short periods during the autumn and winter months, although this will only apply to the northern pool as it will be situated within a larger area where autumn and winter livestock grazing is proposed.

ukhab – UK Habitat Classification			
For ponds (non-priority) – see the	Biodiversity Metric 4.0 Technical	Annex 2.	<u>-</u>
Site name and location	The former Hamble Airfield, Hamble-le-Rice, Hampshire, SO31 4NL	On-site or off-site	On-site
Limitations (if applicable)	N/A	Survey reference (if relating to a wider survey)	N/A
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel reference	N/A
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Core Criteria - applicable to all po	onds (woodland <sup>1</sup> and non-wood		
A	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Yes	Water quality is expected to be good for both pools with the proposed management regime being implemented. Any interaction with livestock will only be for short time periods and of low intensity and is therefore not expected to adversely

			affect the
			water quality.
В	There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Yes	Both pools will be entirely surrounded by 'Medium' distinctiveness habitats comprising a mosaic of grassland and scattered scrub.
C	Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.	No	Water surface accumulations of duckweed and filamentous algae may potentially exceed 10% cover in a given year during the target monitoring period. However, management measures will aim to prevent this via clearance and removal of undesirable free-floating surface water vegetation using hand nets.
D	The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Yes	There will be no artificial connections.
Е	Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams², pumps or pipework.	Yes	The water levels in the pools will be entirely allowed to

		]	fluctuate
			naturally.
F	There is an absence of listed non-native plant and animal	Yes	The pools will be monitored for the presence / establishment of any nonnative species. Where any
	species <sup>3</sup> .		non-native species are discovered, these will be appropriately eradicated.
	The pond is not artificially	Yes	It is not
	stocked with fish. If the pond		proposed that
G	naturally contains fish, it is a		the pools will
	native fish assemblage at low		be stocked
A 1 1 1 1 C 1 1 1 1 1 1 1 1 1 1 1 1 1 1	densities.	1	with any fish.
Additional Criteria - must be asse	essea for all non-woodland pon		Tr. 1-
Н	Emergent, submerged or floating plants (excluding duckweed) <sup>4</sup> cover at least 50% of the pond area which is less than 3 m deep.	No	It is considered unlikely that more than 50% of the pool areas on site will be covered by desirable macrophytic vegetation, comprising a diverse mixture of emergent, submerged and free-floating plant species. However, the development of the macrophytic vegetation within the pools will be monitored

I	The pond surface is no more than 50% shaded by adjacent trees and scrub.	Yes	during the trial management period and targeted management interventions undertaken where required.  The proposed stands of scrub planting on site have been set back from the two pools so that they will not cause any adverse shading impacts and an open area of grassland habitat surrounds
			each pool.
	Number of criteria passed	7	
Condition Assessment Result	Condition Assessment Score	Score Achieved ×/√	
Results for woodland ponds which		criteria	
Passes 7 criteria	Good (3)		
Passes 5 or 6 criteria	Moderate (2)		
Passes 4 or fewer criteria	Poor (1)		
Results for non-woodland ponds		criteria	
Passes 9 criteria	Good (3)		
Passes 6 to 8 criteria	Moderate (2)	✓	
Passes 5 or fewer criteria	Poor (1)		
Suggested enhancement interven	tions to improve condition sco	re	
N/A			

Footnote 1 - A woodland pond will be surrounded on all sides by woodland habitat.

**Footnote 2** – This excludes natural dams such as those created by Eurasian beaver *Castor fiber*.

Footnote 3 - Any species included on the Water Framework Directive (WFD) UKTAG GB High Impact Species List should be absent: WFD UKTAG (2021) Classification of aquatic alien species according to their level of impact [online]. Available from:
UKTAG classification of alien species working paper v8.pdf (wfduk.org)

- Frequently occurring non-native plant species include water fern *Azolla filiculoides*, Australian swamp stonecrop *Crassula helmsii*, parrot's feather *Myriophyllum aquaticum*, floating pennywort *Hydrocotyle ranunculoides* and Japanese knotweed *Reynoutria japonica*, giant hogweed *Heracleum mantegazzianum* (on the bank).
- Frequently occurring non-native animals include signal crayfish *Pacifastacus leniusculus*, zebra mussels *Dreissena polymorpha*, killer shrimp *Dikerogammarus villosus*, demon shrimp *Dikerogammarus haemobaphes*, carp *Cyprinus carpio*.

**Footnote 4** - If the pond is seasonal (as in, it dries out in most summers) then emergent species alone are likely to be found.

# 3.2.10 Damp / pond edge grassland habitat creation

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)					
UK Habitat Classification (Ul	UK Habitat Classification (UKHab) Habitat Type(s)				
Grassland - Other neutral grassland (proposed Moderate condition)					
Site name and location	The former Hamble Airfield, Hamble-le-Rice, Hampshire, SO31 4NL	On-site or off-site	On-site		
Limitations (if applicable)	N/A	Survey referen ce (if relatin g to a wider survey)	N/A		
Grid reference	Approximate central Grid Ref: SU 47765 07807	Habitat parcel referen ce	N/A		

#### **Habitat Creation / Management Proposals**

Areas of damp ground, either surrounding the two waterbodies (pools) or for locations where surface water drainage is required, covering a total combined area of approximately 1.83ha of land, will be prepared and then seeded with a suitable native pond edge or marshy grassland seed mixture.

Once these damp grassland swards have become established, after a period of between 4 and 5 years, they will then be managed via annual mowing in late summer (between mid-August and late-September) with the collection and removal of all of the arisings (e.g. via hay bailing), followed by autumn / winter 'aftermath' grazing by low densities of cattle and/or sheep.

Condition Assessment (	Criteria	Criteri on passed (Yes or No)	Notes (such as justification)
A	The grassland is a good representation of the habitat type it has been identified as, based on	Yes	It is expected that the target damp grassland

	its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present.  Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.		habitat will establish where the proposed seeding is undertaken on the relevant sections of damp ground on site. The initial establishment of the vegetation will be monitored and supplementary seeding and/or removal of any undesirable species will be undertaken as necessary to ensure that the habitat establishes successfully.
В	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 insects, birds and small mammals to live and breed.	No	During the peak summer growing season, when there is a cessation of livestock grazing on site, it is expected that these damp grassland swards will all exceed 7 cm in average height. Damp grassland habitat that has a significant component of rushes (Juncus spp) and tall forbs typically comprises a taller sward during the peak growing season. Notwithstanding the above notes, this condition aspect will be continually monitored during the trial management period to check whether outcomes are better or worse than expected.
С	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens <sup>1</sup> .	No	The proposed damp grassland habitat areas are expected to form a relatively continuous tall sward with minimal bare ground cover. Poaching damage by low numbers of livestock during the autumn and winter period is

1		7	
			expected to be minimal and will repair in the growing season. The damp grassland habitat will also be confined to the areas of the site where public access is excluded.  Notwithstanding the above notes, this condition aspect will be continually monitored during the trial management period to check whether outcomes are better or worse than expected.
		Yes	These areas of damp
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	103	grassland will be maintained as open habitat without any scrub establishment.
Е	Combined cover of species indicative of sub- optimal condition <sup>2</sup> 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.	Yes	With the proposed grassland management regime implemented, negative grassland indicator species such as creeping thistle (Cirsium arvense) and common nettle (Urtica
Additional Cuitouian	If any invasive non-native plant species <sup>3</sup> (as listed on Schedule 9 of WCA <sup>4</sup> ) are present, this criterion is automatically failed. nust be assessed for all non-acid grassland	trunca	dioica) would be infrequent across the sward.
Additional Criterion - I	nust be assessed for all non-acid grassiand	Yes	It is avposted that the
F	There are 10 or more vascular plant species per m² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count).  Note - this criterion is essential for achieving Good condition for non-acid grassland types only.		It is expected that the proposed habitat creation and management regime will result in a good level of overall botanical diversity in the sward, and in almost all cases > 10 vascular plant species will be present per one metre <sup>2</sup> .
Essential criteri	on for Good condition achieved (for non-acid grassland) (Yes or No)	Yes	
	Number of criteria passed	4	
Condition Assessment Result	Condition Assessment Score	Score Achiev ed ×/√	
	Result out of 5 criteria)	1	
Passes 5 criteria	Good (3)		

#### CEMEX UK

#### Habitat Condition Assessment Sheets - Hamble Airfield

Passes 3 or 4 criteria	Moderate (2)		
Passes 2 or fewer criteria	Poor (1)		
Non-acid grassland Types (I	Result out of 6 criteria)		
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)		
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	✓	
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)		

**Footnote 1** – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

**Footnote 2** - Species indicative of sub-optimal condition for this habitat type include: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*. There may be additional relevant species local to the region and or site.

**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, by applying professional judgement.

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

# 4.0 REFERENCES

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# **APPENDIX I: Baseline site photography (02/08/2023)**



**Photo 1:** overview of the grassland habitat on site depicting a distinctly rank and overgrown sward largely dominated by coarse grass species



**Photo 2:** another view of the grassland habitat on site depicting locally-dominant patches of the negative indicator species creeping thistle (*Cirsium arvense*)



**Photo 3:** overview of the dominant habitat type present across the site comprising a mosaic of rank base-poor grassland and bramble (*Rubus fruticosus* agg.) scrub



**Photo 4:** example view of one of the grassland vegetation quadrat samples recorded on site for the baseline condition assessment, depicting a distinctly species-poor sward with less than 10 vascular plant species recorded per metre<sup>2</sup>



**Photo 5:** localised small patches of shorter sward acid grassland in the far north of the site being maintained by wild deer and rabbit grazing, these shorter swards were also generally species-poor



**Photo 6:** the acid grassland indicator species sheep sorrel (*Rumex acetosella*) and early hair-grass (*Aira praecox*) photographed amongst the swards in the north of the site during the baseline condition assessment, other acid grassland species noted included broom fork-moss (*Dicranum scoparium*) and juniper haircap (*Polytrichum juniperinum*)



**Photo 7:** overview of native hedgerow H1 showing relatively dense shrub layer and a number of mature standard pedunculate oak (*Quercus robur*) and ash (*Fraxinus excelsior*) trees



**Photo 8:** overview of native hedgerow H2 showing numerous mature standard pedunculate oak trees and a relatively gappy shrub layer



hedgerow H2



Photo 9: substantial gaps noted in the shrub layer of Photo 10: view within part of the broadleaved woodland habitat area adjacent to the north-western boundary of the site showing a relatively well-established habitat with mature canopy and understorey layers



Photo 11: regenerating small native trees and shrubs photographed within the broadleaved woodland habitat area in the north-west of the site



Photo 12: a notable mature (possible veteran) specimen of pedunculate oak recorded alongside the eastern boundary of the site and assessed to be in 'Good' condition, this particular tree will be retained within the project buffer zone



Photo 13: example photo showing a small specimen of pedunculate oak on site assessed to be in 'Moderate' condition