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THREE SHIRES LTD
ECOLOGY, FENCING, ARBORICULTURE, INVASIVE WEEDS



Wattisham Barracks

ISG Ltd

Biodiversity Net Gain Assessment August 2023



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Report for

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Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)																
UK Habitat Classification (UKHab) Habitat Type(s)																
Grassland - Modified grassland																
Habitat Description																
ukhab – UK Habitat Classification																
Site name and location	Wattisham Airfield				On-site or off-site	On Site										
					Survey reference (if relating to a wider survey)	BNG										
Limitations (if applicable)					Habitat parcel reference											
					1	2	3	4								
Condition Assessment Criteria					Grid reference											
					TM 03308 51571	TM 03290 51546	TM 03324 51538	TM 03362 51579								
				Criterion passed (Yes or No)							Notes (such as justification)					
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (this may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.				No	No	No	No								Areas were dominated with grass (Perennial Rye-grass) with dominate species of Ribwort plantain, Creeping buttercup,
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.				No	No	No	No							Areas were regularly mowed	
C	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.				Yes	Yes	Yes	Yes								
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.				Yes	Yes	Yes	Yes								
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .				Yes	Yes	Yes	Yes								
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.				Yes	Yes	Yes	Yes							No bracken present	
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).				Yes	Yes	Yes	Yes							No none native species present	
Essential criterion achieved (Yes or No)				No	No	No	No									
Number of criteria passed				4	4	4	4									
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/														
Passes 6 or 7 criteria including passing essential criterion A	Good (3)															
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)															
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	✓	✓	✓	✓											
Suggested enhancement interventions to improve condition score																
Footnotes																
<p>Footnote 1 – Creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>.</p> <p>Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.</p> <p>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.</p> <p>Footnote 4 – Wildlife and Countryside Act 1981 (as amended).</p>																

KENDREW BARRACKS PLANTING SCHEDULE

Client: Arcadis
 Project: Kendrew Barracks Planting Schedule
 Location: Cottesmore
 Schedule name: 12-1334-01 - Kendrew Barracks
 Drawing ref.: KENDREW BARRACKS PLANTING SCHEDULE
 Revision: Z9A8416Y20-HLM-XX-XX-SP-L-000001

Date: 08/08/22
 Created by: Conrad Clayden - London office



Trees

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per
Tree	Fagus sylvatica	Common Beech	14-16	400-450	RB	3x; EHS; clear stem 175-200cm; 5 brks		Cour
Tree	Populus nigra 'Italica'	Lombardy Poplar	14-16	425-600	RB	3x; EHS; clear stem 100-150cm; 5 brks		Cour
Tree	Prunus avium	Wild Cherry	12-14	350-425	RB	3x; HS; clear stem 175-200cm; 5 brks		Cour

Hedging

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per
Tree	Carpinus betulus	Common Hornbeam		80-100	5L	1+1; Transplant - seed raised; branched; 5 brks		5

Amenity Planting Mix

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per
Shrub	Choisya 'Aztec Pearl'	Mexican Orange Blossom 'Aztec Pearl'		30-40	3L	Bushy; 5 brks	25.00	4
Shrub	Sarcococca confusa	a Sweet Box		20-30	2L	Bushy; 4 brks	10.00	4
Shrub	Skimmia japonica 'Rubella'	Japanese Skimmia 'Rubella'		30-40	3L	Bushy; 3 brks	25.00	4
Shrub	Spiraea nipponica 'Snowmound'	Japanese Spirea 'Snowmound'		40-60	3L	Branched; 5 brks	10.00	4
Shrub	Viburnum davidii	David Viburnum		20-30	3L	Bushy; 3 brks	20.00	4
Shrub	Viburnum opulus 'Compactum'	Guelder Rose 'Compactum'		30-40	3L	Bushy; 4 brks	10.00	4

Building Perimeter Planting Mix

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per
Shrub	Hebe 'Great Orme'	Shrubby Veronica 'Great Orme'		30-40	3L	Bushy; 3 brks	10.00	4
Shrub	Lavandula stoechas pedunculata	French Lavender		15-20	2L	Bushy; 5 brks	20.00	4
Shrub	Perovskia 'Blue Spire'	Russian Sage 'Blue Spire'		30-40	3L	Bushy; 3 brks	20.00	4
Shrub	Santolina virens	Green Cotton Lavander		20-30	2L	Bushy; 5 brks	10.00	4
Shrub	Sarcococca confusa	a Sweet Box		20-30	2L	Bushy; 4 brks	10.00	4
Shrub	Skimmia japonica 'Rubella'	Japanese Skimmia 'Rubella'		30-40	3L	Bushy; 3 brks	10.00	4
Shrub	Viburnum davidii	David Viburnum		20-30	3L	Bushy; 3 brks	20.00	4

Meadow Seed Mixture for Swales

Area: 228.000m² Sow Rate: 4g/m² Amount: 912g Cost: (please input) /g

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per
Wildflower	Achillea millefolium	Yarrow				Seed; British native-origin	0.50	
Grass	Agrostis capillaris	Common Bent				Seed; commercial-origin	12.00	
Grass	Alopecurus pratensis	Meadow Foxtail				Seed; British native-origin	5.00	
Grass	Anthoxanthum odoratum	Sweet Vernal Grass				Seed; British native-origin	1.00	
Wildflower	Betonica officinalis	Betony				Seed; British native-origin	0.50	

Wildflower	Centaurea nigra	Common Knapweed				Seed: British native-origin	1.00
Grass	Cynosurus cristatus	Crested Dog's-tail				Seed: commercial-origin	36.00
Grass	Deschampsia cespitosa	Tufted Hair Grass				Seed: British native-origin	1.00
Grass	Festuca rubra juncea	Slender Creeping Red Fescue				Seed: commercial-origin	25.00
Wildflower	Filipendula vulgaris	Dropwort				Seed: British native-origin	1.00
Wildflower	Galium verum	Lady's Bedstraw				Seed: British native-origin	1.60
Wildflower	Leucanthemum vulgare	Ox-eye Daisy				Seed: British native-origin	1.50
Wildflower	Lotus pedunculatus	Greater Bird's-foot Trefoil				Seed: British native-origin	0.30
Wildflower	Plantago lanceolata	Ribwort Plantain				Seed: British native-origin	1.00
Wildflower	Primula veris	Cowslip				Seed: British native-origin	1.00
Wildflower	Prunella vulgaris	Selfheal				Seed: British native-origin	2.00
Wildflower	Ranunculus acris	Meadow Buttercup				Seed: British native-origin	3.00
Wildflower	Rhinanthus minor	Yellow Rattle				Seed: British native-origin	1.60
Wildflower	Rumex acetosa	Common Sorrel				Seed: British native-origin	1.20
Wildflower	Silaum silaus	Pepper Saxifrage				Seed: British native-origin	1.50
Wildflower	Silene flos-cuculi	Ragged Robin				Seed: British native-origin	0.30
Wildflower	Succisa pratensis	Devil's Bit Scabious				Seed: British native-origin	0.20
Wildflower	Vicia cracca	Tufted Vetch				Seed: British native-origin	1.80

General purpose turf seed mix

Area: 1945.000m² Sow Rate: 50g/m² Amount: 97250g Cost: (please input) /g

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %
Grass	Agrostis castellana	Highland Bent				Seed: commercial-origin	10.00
Grass	Festuca rubra juncea	Slender Creeping Red Fescue				Seed: commercial-origin	50.00
Grass	Lolium perenne	Perennial Rye Grass				Seed: commercial-origin	20.00
Grass	Poa pratensis	Smooth-stalked Meadow Grass				Seed: commercial-origin	20.00

Standard General Purpose Meadow Seed Mix

Area: 662.000m² Sow Rate: 4g/m² Amount: 2648g Cost: (please input) /g

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %
Wildflower	Achillea millefolium	Yarrow				Seed: British native-origin	0.50
Grass	Agrostis capillaris	Common Bent				Seed: commercial-origin	8.00
Wildflower	Centaurea nigra	Common Knapweed				Seed: British native-origin	0.50
Grass	Cynosurus cristatus	Crested Dog's-tail				Seed: commercial-origin	40.00
Wildflower	Daucus carota	Wild Carrot				Seed: British native-origin	1.00
Grass	Festuca rubra juncea	Slender Creeping Red Fescue				Seed: commercial-origin	28.00
Wildflower	Galium verum	Lady's Bedstraw				Seed: British native-origin	2.50
Wildflower	Knautia arvensis	Field Scabious				Seed: British native-origin	1.00
Wildflower	Leucanthemum vulgare	Ox-eye Daisy				Seed: British native-origin	2.00
Wildflower	Lotus comiculatus	Bird's-foot Trefoil				Seed: British native-origin	0.20
Grass	Phleum bertolonii	Smaller Cat's-Tail				Seed: commercial-origin	4.00
Wildflower	Plantago lanceolata	Ribwort Plantain				Seed: British native-origin	1.00
Wildflower	Primula veris	Cowslip				Seed: British native-origin	1.50
Wildflower	Prunella vulgaris	Selfheal				Seed: British native-origin	2.50
Wildflower	Ranunculus acris	Meadow Buttercup				Seed: British native-origin	3.00
Wildflower	Ranunculus bulbosus	Bulbous Buttercup				Seed: British native-origin	2.00
Wildflower	Rhinanthus minor	Yellow Rattle				Seed: British native-origin	1.50
Wildflower	Rumex acetosa	Common Sorrel				Seed: British native-origin	0.80

1. Introduction

1.1 Background

Three Shires Ltd was commissioned by the ISG Ltd (hereafter known as the 'client') in August 2023 to undertake a Biodiversity Net Gain (BNG) assessment on a piece of land at Wattisham Airfield in Ipswich, Suffolk. The land includes a carpark and a building known as "Block 314," collectively referred to as "the Site."

1.2 Site Location and Description

The site is located within Wattisham Flying Station, Suffolk. It sits 2km east of Wattisham and is accessed via Roman Road. The approximate centre of the Site is Ordnance Survey Grid Reference (OSGB) (TM 03160 51458), in the Local Planning Authority of Mid Suffolk District Council. The Site is dominated by modified grassland, urban areas and trees.

1.3 Site Proposals

The proposed works are to demolish the existing building (Block 314) and to construct a new accommodation block and additional ancillary structures to support this new building. There is proposed planting of new hedgerows and trees along the border of the new accommodation block, with additional wildflower meadows along the eastern border.

The scheme design is composed of the footprint of both temporary and permanent infrastructure. Due to the comparable impacts on biodiversity between the two, all works on the scheme design will be treated as permanent for the purpose of the biodiversity metric.

The proposed works that impact on the biodiversity units (BU's) of the Site are:

- Car park removal;
- Block 314 (B314) demolition into new accommodation block;
- Installation of hardstanding footpaths;
- Creation of external plant, bin store and bike store buildings;
- Installation of benches.

To mitigate the above impacts the following habitats will be created:

- Wildflower meadows created from native planting and management;
- Native hedgerow, trees and scrub planting;
- Sustainable Drainage Systems (SuDS) such as rain gardens.

Additional enhancements proposed that do not contribute to biodiversity net gain:

- Bat & bird boxes;
- Hibernacula creation, i.e. log piles.

1.4 Scope and Purpose of this Report

This document presents the BNG score for The Site based on the proposed development and habitat creation. This calculation is based on drawing Z9A8403Y20-HLM-10-00-DR-L-000103 by HLM Architects date 15/10/2021 (Appendix A).

2. Biodiversity Net Gain Calculations

This assessment was carried out using the most up-to-date Defra Metric (currently version 4.0¹).

To inform these calculations the UK Habitat Land classification (UKHAB 2.01²) and condition assessments were conducted on the Site survey in August 2023 carried out by Three Shires Ltd. The condition assessments of the habitats that have been identified on-site are presented in Appendix E.

Biodiversity Net Gain (BNG) calculations require all habitats within the red line boundary (RLB) of the proposed works to be entered into the calculator, even if it is not impacted by the proposed works. BNG is calculated on three distinct habitat types or categories:

1. Area based habitats such as grassland, woodland etc measured in hectares.
2. Linear habitats such as hedgerows, lines of trees etc measured in km.
3. Watercourses such as rivers, streams etc measured in km.

For this site module three associated with watercourses has not been used as there was no habitat of this type on this site so this will not be considered further in this report.

Value of each habitat is measured in biodiversity units and broadly based on the three components:

Distinctiveness – A pre-assigned value by the metric depending on the habitat type.

Condition – Assessed by the ecologist during The Site survey to allow for variation of quality between different parcels of the same habitat type.

Strategic significance - The local significance of the habitat based on its location and habitat type.

The metric can then be used to calculate the baseline units for each category of The Site. To achieve BNG the number of biodiversity units on site must be higher than this baseline on each category present on The Site by at least 10%.

This report will present the biodiversity units that are present under the current red-line boundary. This will identify what is required to achieve the 10% gain.

The scheme design will then be used to identify the losses by the proposed scheme (Appendix A) and areas where habitats can be created or enhanced to mitigate these losses to achieve the required gain.

To calculate the habitat interventions units, there is four bands of 'risk' relating to the difficulty of the habitat restoration or recreation varying from 'low to 'Very High'. These apply to the type of habitat change scenarios there are within Biodiversity Metric 4.0, such as;

Habitat Retention – the baseline habitat is retained in its baseline condition with no action to enhance or create the habitat.

Habitat Creation – the baseline habitat is replaced by another habitat or has changed in broad habitat type.

¹ [Natural England, 'The Biodiversity Metric 4.0 \(JP039\)](#)

² <https://ukhab.org/>

Habitat Enhancement – an improved condition compared to the baseline or change to higher distinctiveness habitat within the same broad habitat group in comparison to the assigned baseline.

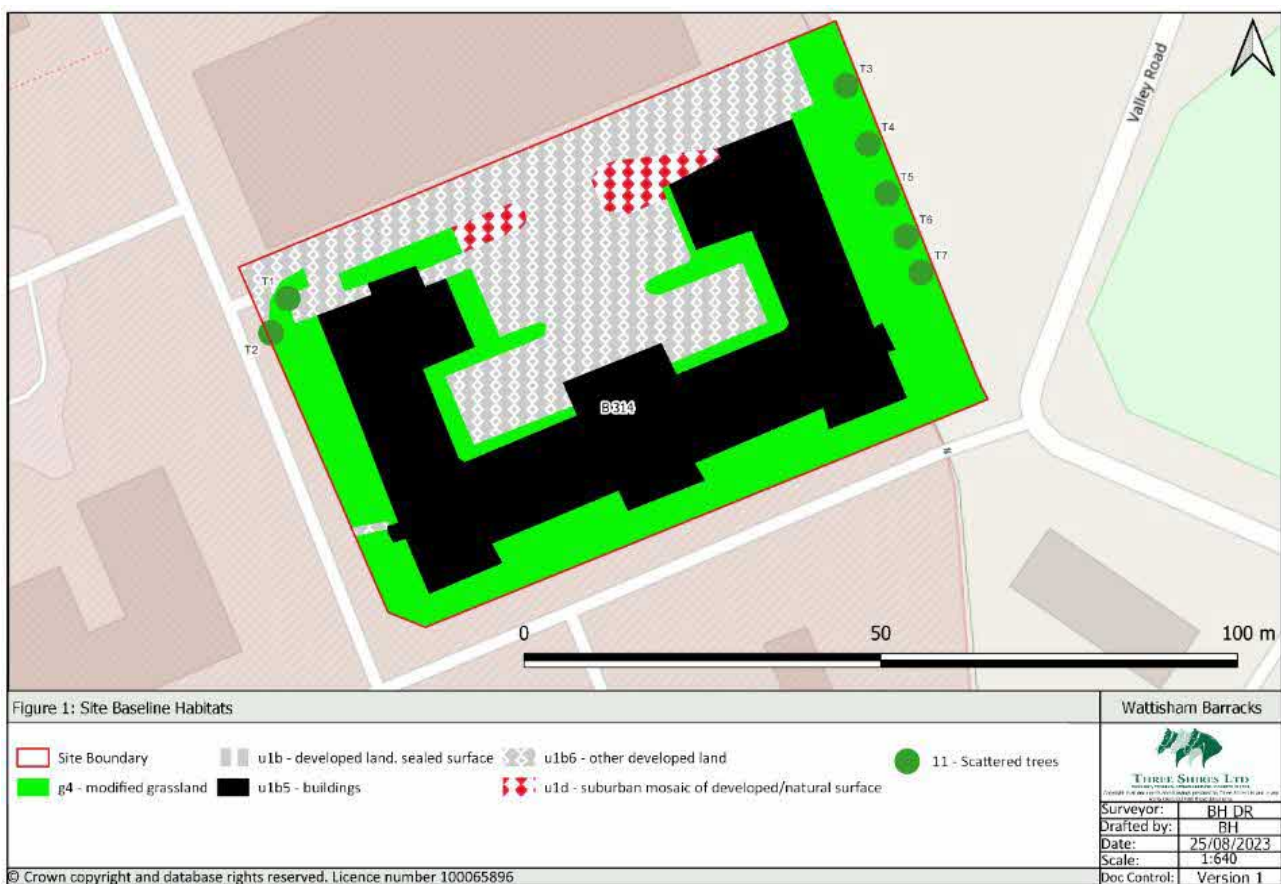
3. Results

3.1 Site Baseline Habitats

A description of each habitat is detailed below (along with their UKHab code), their location in Figure 1 (Appendix B for an A3 version). Condition assessments for each habitat can be found at Appendix E.

The Site comprises one building B314 surrounded by managed modified grassland which borders the Site. The grassland to the east and west has a disused wooden fence with a gate. To the north of B314 is developed land in the form of a road leading to the main entrance, with tarmac parking, concrete footpaths and ground planters with a selection of native and ornamental species. Planted, individual trees are situated on the east boundary and to the northwest corner.

Figure 1: Area Habitats Baseline



3.1.1 Grassland

Modified grassland (g4) - 108 Frequently mown

The Site has a border of modified grassland, which has been subject to frequent management by mowing creating an unvaried sward height and a fairly poor species composition. Perennial ryegrass (*Lolium perenne*) dominates the habitat with few broad-leaf forb species including creeping buttercup (*Ranunculus repens*), white clover (*Trifolium repens*), daisy (*Bellis perennis*) and selfheal (*Prunella vulgaris*).

The condition of this habitat is determined to be poor.



Photograph 1: Modified grassland which dominates the Site and surrounds the building and structures.

3.1.2 Urban – (U)

The largest habitat consists of the hardstanding buildings and concrete car park and footpaths throughout the site.

Buildings (u1b5)

There is one building situated on Site, a small car park to the north and footpaths to the west and south of the Site. The main building, B314 is situated centrally in the Site and is a four-storey building.

This habitat does not have a condition associated with it.



Photograph 2: The Main building, B314, of which is situated centrally within the Site.



Photograph 3: The Main building, B314, of which is situated centrally within the Site.

Other developed Land, sealed surface (u1b6)

There is a carpark (0.147ha) situated to the north of the Site (Photograph 4) with car parking spaces along the road. Hardstanding public footpaths are present on the northern and western part of the Site, bordering B314 (Photograph 5).

This habitat does not have a condition associated with it.



Photograph 4: Car Park situated to the north of the site.



Photograph 5: Footpaths situated to the north, west and south of the b314 perimeter.

3.1.3 Urban Introduced shrub (1160)

To the north of the site there are two areas of introduced shrub on the east (Photograph 7) and west side (Photograph 6) of the car park. Both areas comprised of similar native and non-native species composition which includes cherry laurel (*Prunus laurocerasus*), sycamore (*Acer pseudoplatanus*), common gorse (*Ulex europaeus*) and laurustinus (*Viburnum tinus*).



Photograph 6: Introduced shrub to the west side of the car park.



Photograph 7: Introduced shrub to the east of the car park.

3.1.4 Urban Mature Tree – (203)

There are seven mature trees situated along the boundary of the Site. The first two are situated to the northwest of the boundary and include one Lawson cypress tree (*Chamaecyparis lawsoniana*) Photograph 8 previously identified as T1 and a mature field maple (*Acer campestre*) Photograph 9 (T2).

T1 was determined to be of moderate condition, with T2 determined to be of good condition.



Photograph 8: T1 A Lawson cypress situated to the northwest of the Site.



Photograph 9: T2 A field maple situated to the northwest of the Site.

Five trees are situated on the eastern boundary. These are two wild cherry (*Prunus avium*) (T3 and T7), two rowan (*Sorbus aucuparia*) (T4 and T6) (Photograph 10) and an ornamental cherry (*Prunus* sp.) (T5) (Photograph 11).

T5 which was determined to be in a moderate condition with the other four trees being classified as in good habitat condition.



Photograph 10: Wild cherry tree (T3) located on the east of the site.



Photograph 11: T4, T5, T6, T7 located on the east of the site.

3.2 On-site Baseline Biodiversity Units

The baseline biodiversity units (BUs) of the categories present on-Site (no watercourses were identified) are listed in Table 1 (Area Habitats Baseline). These should be used in conjunction with the map in Appendix B showing the locations of each habitat.

Table 1: On-site Area Habitats Baseline

Map Reference	Habitat Type	Distinctiveness	Condition	Strategic Significance	Area (ha)	BUs
Western Planter (WP)	Urban-Introduced Shrub	Low	N/A	Area/compensation not in local strategy/ no local strategy	0.004	0.01
Eastern Planter (EP)	Urban-Introduced shrub	Low	N/A	Area/compensation not in local strategy/ no local strategy	0.007	0.01
G1	Grassland - Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.136	0.27
G2	Grassland - Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.013	0.03
G3	Grassland - Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.012	0.02
G4	Grassland - Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.006	0.01
T1	Individual trees - Urban Tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.29

Map Reference	Habitat Type	Distinctiveness	Condition	Strategic Significance	Area (ha)	BUS
T2	Individual trees - Urban Tree	Medium	Good	Area/compensation not in local strategy/ no local strategy	0.0366	0.44
T3	Individual trees - Urban Tree	Medium	Good	Area/compensation not in local strategy/ no local strategy	0.0366	0.44
T4	Individual trees - Urban Tree	Medium	Good	Area/compensation not in local strategy/ no local strategy	0.0366	0.44
T5	Individual trees - Urban Tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.29
T6	Individual trees - Urban Tree	Medium	Good	Area/compensation not in local strategy/ no local strategy	0.0366	0.44
T7	Individual trees - Urban Tree	Medium	Good	Area/compensation not in local strategy/ no local strategy	0.0366	0.44
B314	Urban-Developed land, sealed surface	V.Low	N/a	Area/compensation not in local strategy/ no local strategy	0.185	0.00
Car Park	Urban-Developed land, sealed surface	V.Low	N/a	Area/compensation not in local strategy/ no local strategy	0.147	0.00
Total						3.14

3.3 On-Site Post-Development Habitats

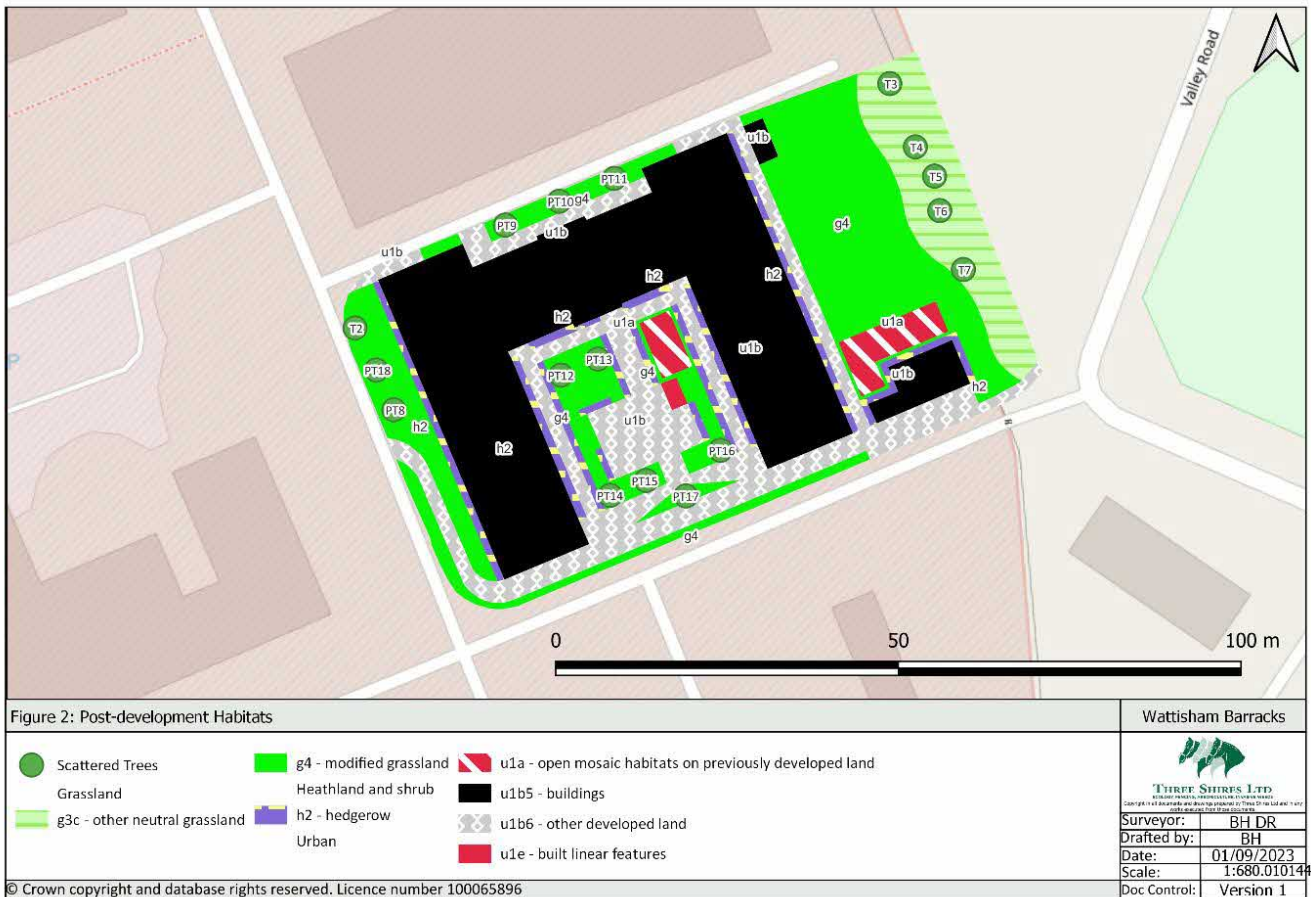
The following describes the proposed change in habitats post-development which has been calculated based on the landscaping plan in Appendix A.

To complete the BNG calculations the following assumptions have been made:

No planting schedule was provided for The Site, therefore a landscaping schedule from a similar scheme (Kendrew DIO) has been used and has been provided in Appendix F.

All shrub and hedge planting has been designated as hedge planting in the calculations for consistency.

Figure 2: Site Post-Development Habitats



3.3.1 Habitats Retained

The following lists the habitats which have remained as the same habitat type and condition, post-development.

Mature Individual Trees

Tree's T2, T3, T4, T5, T6 and T7 are due to be retained during the works.

3.3.2 Habitats lost

Mature Individual Trees

Tree T1 is due to be removed during the works.

3.3.3 Habitat Enhancement

Modified grassland (g4)

The grassland (labelled G1 on Table 1) located on the eastern boundary (0.136ha) is to be enhanced from poor modified grassland to moderate other neutral grassland through the sowing of a meadow seed mix and better management practices.

3.3.4 Habitat Creation

Urban – Buildings:

There are three new buildings proposed; a new accommodation block (NB1), a bike shed/bin storage (NB2) and an external plant building (NB3).

Urban – Developed land, sealed surface

The proposed footpaths and other hardstanding areas have been created under ‘developed land, sealed surface’.

Native hedgerow

There are 15 native hedgerows to be planted around hardstanding areas and the proposed accommodation block (NB1). These hedgerows will be comprised of common hornbeam (*Carpinus betulus*) and should be a moderate condition.

Individual Trees - Urban

There are 11 trees to be planted throughout the boundary of the northern, southern and western site boundary. This includes Lombardy poplar (*Populus nigra 'Italica'*), wild cherry (*Prunus avium*) and common beech (*Fagus sylvatica*). For the calculator these were recorded as being of a ‘Medium’ size (Diameter at Breast Height >30cm but <90cm) following the 27 years standard time to reach the target condition score of ‘moderate’.

Urban - Sustainable Drainage Systems - Rain Garden (850):

Two Sustainable Drainage System (SuDS) rain gardens are proposed to be implemented to the east and south of the newly proposed accommodation block (NB1). These are to be of varied species of which will be targeting good condition criteria.

Modified grassland (g4)

The proposed grassland will be scattered across the site to break up areas of hardstanding. The condition of the proposed grassland will be considered poor condition.

3.4 Impacts of the Development on the BNG

Table 2 shows the number of units that are to be affected by the proposed works. This includes habitat that is to be retained and lost as part of the proposed works.

If a habitat is affected and will be returned to its previous type and condition within a two-year time scale this would be considered as temporary loss. Any areas temporary losses that would not be restored within this time frame for the purposes of the calculator are considered as permanent loss.

Table 2: On-site Area Habitats to be Lost

Map Reference	Habitat Type	Area retained (ha)	BU's retained	Area lost (ha)	BU's lost
Western Planter (WP)	Urban-Introduced Shrub	0.00	0.00	0.00	0.01
Eastern Planter (EP)	Urban-Introduced shrub	0.00	0.00	0.01	0.01

Map Reference	Habitat Type	Area retained (ha)	BU's retained	Area lost (ha)	BU's lost
G1	Grassland - Modified Grassland	0.00	0.00	0.09	0.19
G2	Grassland - Modified Grassland	0.00	0.00	0.01	0.03
G3	Grassland - Modified Grassland	0.00	0.00	0.01	0.02
G4	Grassland - Modified Grassland	0.00	0.00	0.02	0.01
T1	Individual trees - Urban Tree	0.00	0.00	0.00	0.29
T2	Individual trees - Urban Tree	0.0366	0.44	0.00	0.00
T3	Individual trees - Urban Tree	0.0366	0.44	0.00	0.00
T4	Individual trees - Urban Tree	0.0366	0.44	0.00	0.00
T5	Individual trees - Urban Tree	0.0366	0.29	0.00	0.00
T6	Individual trees - Urban Tree	0.0366	0.44	0.00	0.00
T7	Individual trees - Urban Tree	0.0366	0.44	0.00	0.00
B314	Urban- Developed land, sealed surface	0.00	0.00	0.19	0.00
Car Park	Urban- Developed land, sealed surface	0.00	0.00	0.15	0.00
Total					0.56

The proposed works will result in the direct loss of 0.56 BU that will need to be replaced following the works.

3.5 On Site Habitat Creation

To achieve the required units to balance the losses incurred from the development and to achieve a 10% increase in biodiversity units the following habitat creation is recommended:

Map Reference	Habitat Type	Distinctiveness	Condition	Strategic significance	Area (ha)	BUs
U1	Urban- Developed land; sealed surface	V.Low	N/a	Area/compensation not in local strategy/ no local strategy	0.32	0.00
RG1	Urban- Rain Garden	Low	Good	Area/compensation not in local strategy/ no local strategy	0.009	0.05
RG2	Urban- Rain Garden	Low	Good	Area/compensation not in local strategy/ no local strategy	0.004	0.02

Map Reference	Habitat Type	Distinctiveness	Condition	Strategic significance	Area (ha)	BUs
Shelter	Urban- Built linear features	V.Low	N/a	Area/compensation not in local strategy/ no local strategy	0.001	0.00
PG1	Grassland-Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.069	0.13
PG2	Grassland-Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.011	0.02
PG3	Grassland-Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.022	0.04
PG4	Grassland-Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.002	0.00
PG5	Grassland-Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.014	0.03
PG6	Grassland-Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.007	0.01
PG7	Grassland-Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.008	0.02
PG8	Grassland-Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.001	0.00
PT8	Individual tree-Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
PT9	Individual tree-Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
PT10	Individual tree-Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
PT11	Individual tree-Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
PT12	Individual tree-Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
PT13	Individual tree-Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
PT14	Individual tree-Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
PT15	Individual tree-Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
PT16	Individual tree-Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11

Map Reference	Habitat Type	Distinctiveness	Condition	Strategic significance	Area (ha)	BU's
PT17	Individual tree- Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
PT18	Individual tree- Urban tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.0366	0.11
Total						1.46

3.6 On-Site Enhancement

Map Reference	Habitat Type	Distinctiveness	Condition	Strategic significance	Area (ha)	BU's
G1	Grassland- Modified Grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.042	0.26

3.7 On Site Hedgerow Creation

Map Reference	Habitat Type	Distinctiveness	Condition	Strategic significance	Length (km)	BU's
H1	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.047	0.16
H2	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.026	0.09
H3	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.024	0.08
H4	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.007	0.02
H5	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.005	0.02
H6	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.005	0.02
H7	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.006	0.02
H8	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.004	0.01
H9	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.01	0.03
H10	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.01	0.03
H11	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.008	0.03

Map Reference	Habitat Type	Distinctiveness	Condition	Strategic significance	Length (km)	BU's
H12	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.024	0.08
H13	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.026	0.09
H14	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.047	0.16
H15	Native Hedgerow	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.032	0.11
Total						0.94

4. Summary

Biodiversity net gain calculations have been carried out on the site. The water course module was not used as none of these features are present on the site.

The Site has baseline biodiversity units of:

3.14 BU for area habitats; and

0 BU for hedgerows and lines of trees

Using the designs provided, the proposed scheme and associated landscaping was input into the metric to assess the changes to the biodiversity units present. The scheme achieved the following results:

4.30 BU for area habitats

0.94 BU for hedgerows and lines of trees

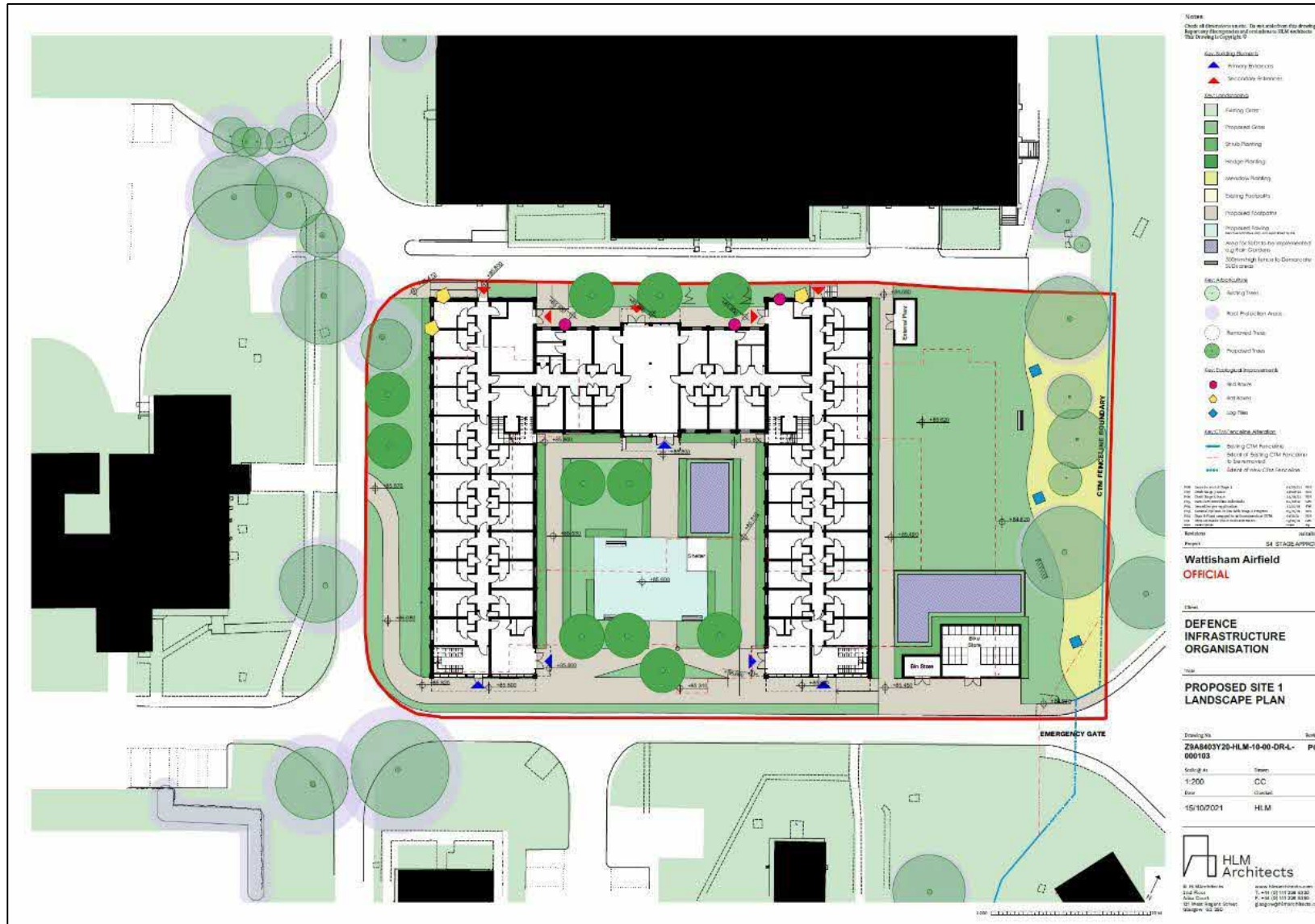
The proposed scheme therefore when including all on-site habitat retention, creation and enhancement achieves a net change of 1.17 BUs (a 37.17% increase) in habitat units and 0.94 BUs (a 100% increase) in hedgerow units. This result satisfies the required increase and all trading rules within the metric are achieved.

4.1 Recommendations

Any enhancements that are required for biodiversity net gain will be required to achieve the target condition within the specified timeframe and will need to be maintained for a minimum of 30 years post development. No development will be allowed to occur in these areas without incurring further penalties. Any enhancements that are required for biodiversity net gain are required to achieve the target condition within the specified timeframe and will need to be maintained for a minimum of 30 years post-development. No development will be allowed to occur in these areas without incurring further penalties. Due to this, only areas of The Site that can be effectively managed for 30 years are viable.

Regarding the planting schedule previously devised for the prior BNG report, any room to improve this by planting more native species could improve the habitat units delivered. For instance, the urban Lombardy poplar trees proposed to be planted could be replaced by a native species such as silver birch (*Betula pendula*) or alder (*Alnus glutinosa*) for instance. The proposed seed mix for the rain gardens is unlikely to achieve the good condition due to the lack of species that are adapted to damp conditions. The species that are listed are unlikely to create the range of species that flower over the year to achieve the requirements of a good condition rain garden.

Appendix A: Proposed Site Landscape Plan



Appendix B: Site Baseline Habitats

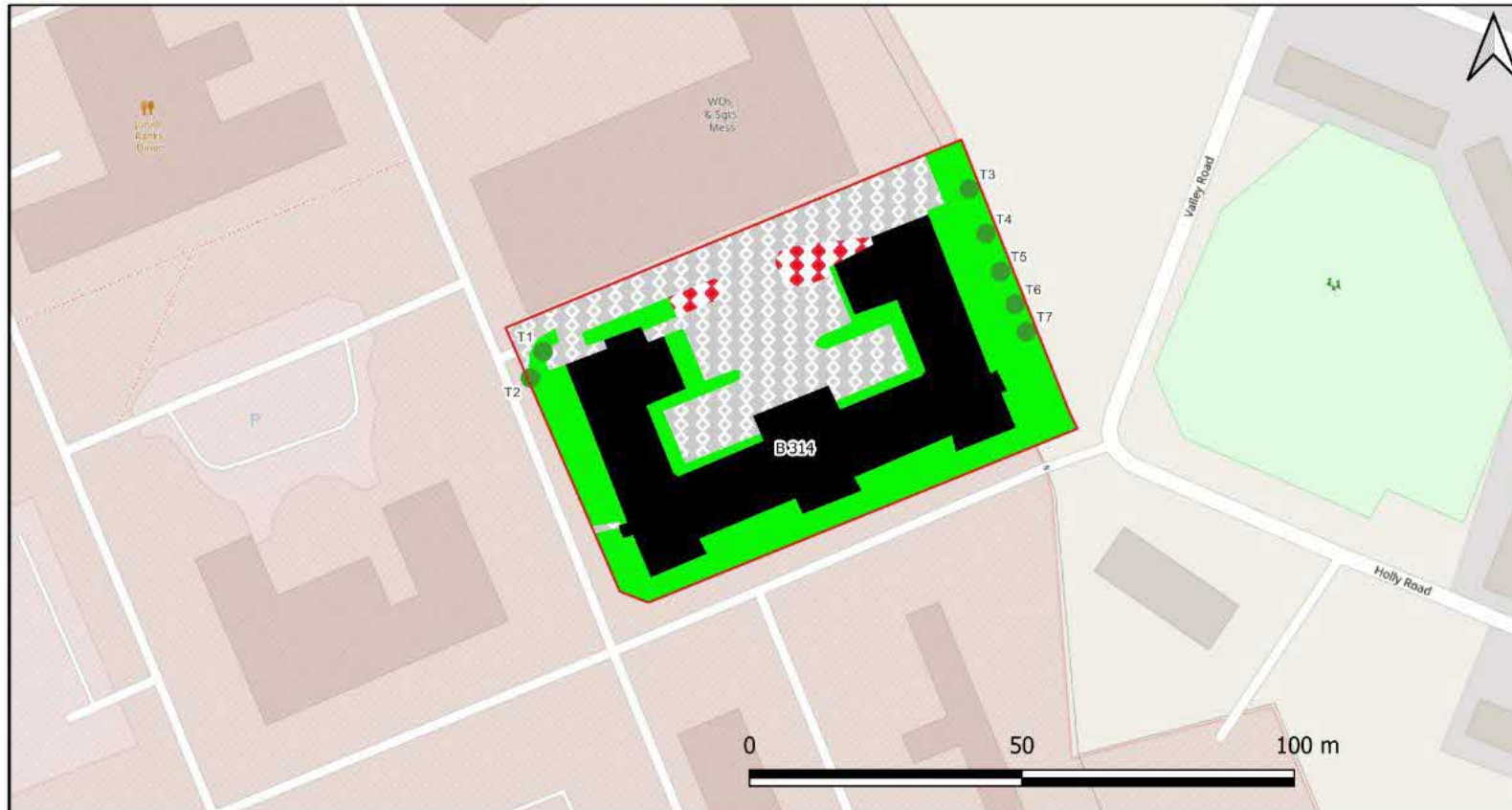


Figure 1: Site Baseline Habitats

- Site Boundary
- u1b - developed land, sealed surface
- u1b6 - other developed land
- 11 - Scattered trees
- g4 - modified grassland
- u1b5 - buildings
- u1d - suburban mosaic of developed/natural surface

Wattisham Barracks



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CONSULTANTS, FENCING, ARBORICULTURE, INVASIVE WEEDS

Surveyor:	BH DR
Drafted by:	BH
Date:	25/08/2023
Scale:	1:1,000
Doc Control:	Version 1

Appendix C: Proposed Site Habitats Post Development

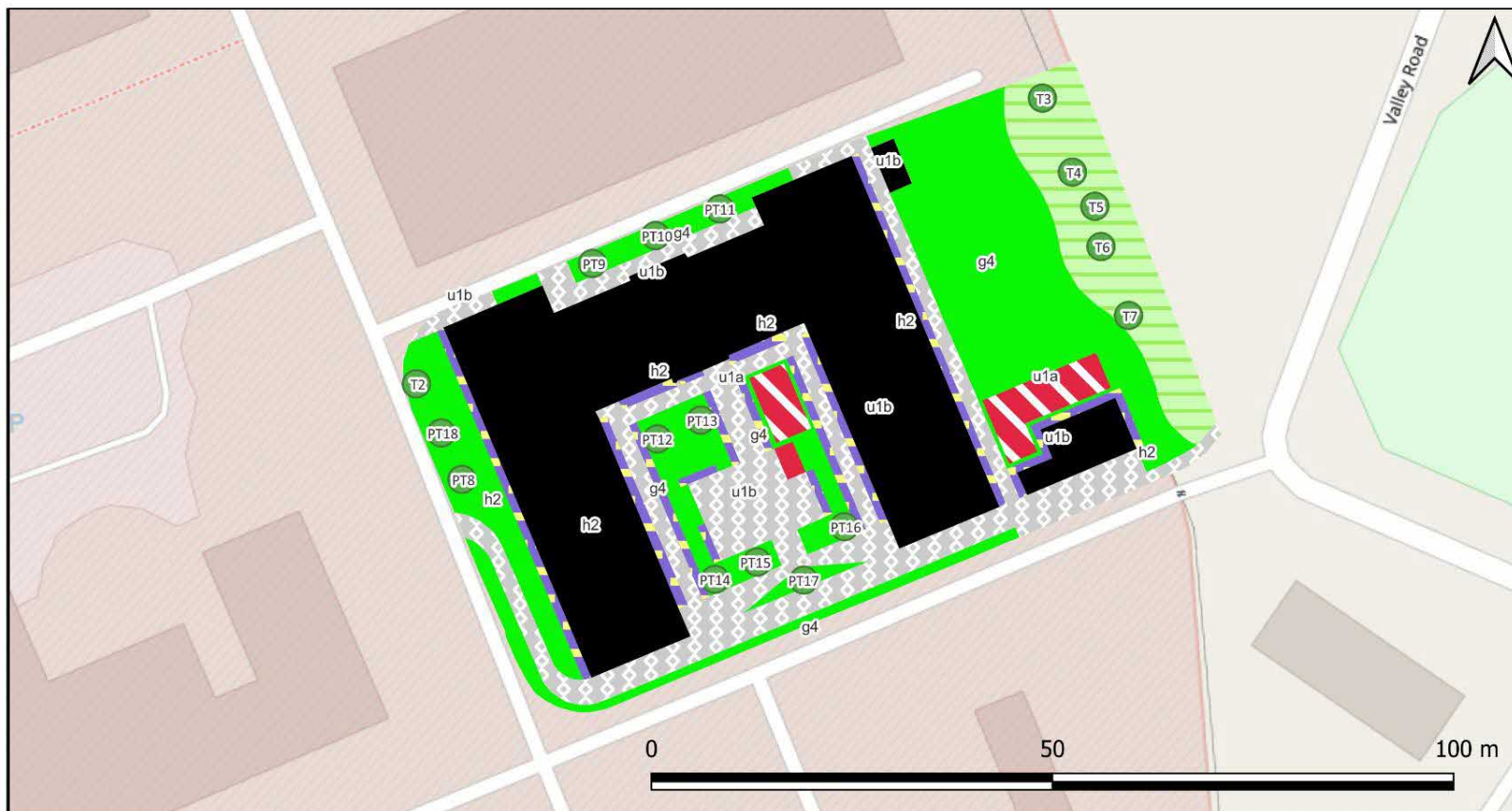













Figure 2: Post-development Habitats

Wattisham Barracks

 Scattered Trees	 g4 - modified grassland	 u1a - open mosaic habitats on previously developed land
 Grassland	 Heathland and shrub	 u1b5 - buildings
 g3c - other neutral grassland	 h2 - hedgerow	 u1b6 - other developed land
	 Urban	 u1e - built linear features

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Surveyor:	BH DR
Drafted by:	BH
Date:	01/09/2023
Scale:	1:680.010144
Doc Control:	Version 1

Appendix D: Biodiversity Metric – Baseline Headline Results

On-site baseline	<i>Habitat units</i>	3.14	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	4.30	
	<i>Hedgerow units</i>	0.94	
	<i>Watercourse units</i>	0.00	
On-site net change (units & percentage)	<i>Habitat units</i>	1.17	37.17%
	<i>Hedgerow units</i>	0.94	0.00%
	<i>Watercourse units</i>	0.00	0.00%

Appendix E: Condition Assessment Sheets

Condition Sheet: INDIVIDUAL TREES Habitat Type											
Habitat Type(s)											
Individual trees – Urban trees Individual trees – Rural trees Complete a condition sheet for each tree or block of trees. Please see separate Line of trees condition sheet for a line of Rural trees.											
Habitat Description											
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		Wattisham Airfield			On-site or off-site		On site BH DR				
					Survey reference (if relating to a wider survey)						
Limitations (if applicable)		Habitat parcel reference									
		T1 (Cypres)	T2 (Field)	T3 (wild)	T4 (rowan)	T5 (orienta)	T6 (rowan)	T7 (wild)			
		Grid reference									
Condition Assessment Criteria		TM 03284 54572	TM 03281 54587	TM 03366 54574	TM 03366 54582	TM 03366 54582	TM 03360 54504	TM 03374 54572			
		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).	No	Yes	Yes	Yes	No	Yes	Yes			Majority of species were native
B	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	Yes	Yes	Yes	Yes	Yes	Yes			
C	The tree is mature (or more than 50% within the block are mature).	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
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	Yes	Yes	Yes	Yes	Yes	Yes			No evidence of vandalism or excessive pruning
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	No	Yes	No	No	No	Yes			
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	No	Yes	Yes	Yes	Yes	Yes	Yes			
Number of criteria passed		3	5	6	5	4	5	6			
Condition Assessment Result (out of 6 criteria)		Condition Assessment Score		Score Achieved x/✓							
Passes 5 or 6 criteria		Good (3)			✓	✓	✓		✓	✓	
Passes 3 or 4 criteria		Moderate (2)		✓				✓			
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 enhancement interventions to 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: Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)											

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)										
UK Habitat Classification (UKHab) Habitat Type(s)										
Grassland - Modified grassland										
Habitat Description										
ukhab – UK Habitat Classification										
Site name and location	Wattisham Airfield	On-site or off-site	On Site							
		Survey reference (if relating to a wider survey)	BNG							
Limitations (if applicable)		Habitat parcel reference								
		1	2	3	4					
Condition Assessment Criteria		Grid reference								
		TM 03308 51571	TM 03290 51546	TM 03324 51538	TM 03362 51579					
		Criterion passed (Yes or No)								Notes (such as justification)
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (this may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	No	No	No	No					Areas were dominated with grass (Perennial Rye-grass) with dominate species of Ribwort plantain, Creeping buttercup,
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	No	No	No					Areas were regularly mowed
C	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes	Yes	Yes	Yes					
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes	Yes	Yes	Yes					
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	Yes	Yes	Yes	Yes					
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Yes	Yes	Yes	Yes					No bracken present
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Yes	Yes	Yes	Yes					No none native species present
Essential criterion achieved (Yes or No)		No	No	No	No					
Number of criteria passed		4	4	4	4					
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/								
Passes 6 or 7 criteria including passing essential criterion A	Good (3)									
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)									
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	✓	✓	✓	✓					
Suggested enhancement interventions to improve condition score										
Footnotes										
<p>Footnote 1 – Creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>.</p> <p>Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.</p> <p>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.</p> <p>Footnote 4 – Wildlife and Countryside Act 1981 (as amended).</p>										

Appendix F: Planting Schedule

KENDREW BARRACKS PLANTING SCHEDULE

Client: Arcadis Date: 08/08/22
 Project: Kendrew Barracks Planting Schedule Created by: Conrad Clayden - London office
 Location: Cottesmore
 Schedule name: 12-1334-01 - Kendrew Barracks
 Drawing ref.: KENDREW BARRACKS PLANTING SCHEDULE
 Revision: Z9A8416Y20-HLM-XX-XX-SP-L-000001



Trees

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %		Number
Tree	Fagus sylvatica	Common Beech	14-16	400-450	RB	3x; EHS; clear stem 175-200cm; 5 brks		Counted	4
Tree	Populus nigra 'Italica'	Lombardy Poplar	14-16	425-600	RB	3x; EHS; clear stem 100-150cm; 5 brks		Counted	5
Tree	Prunus avium	Wild Cherry	12-14	350-425	RB	3x; HS; clear stem 175-200cm; 5 brks		Counted	5

Hedging

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per m	Number
Tree	Carpinus betulus	Common Hornbeam		80-100	5L	1+1; Transplant - seed raised; branched; 5 brks		5	30

Amenity Planting Mix

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per m²	Number
Shrub	Choisya 'Aztec Pearl'	Mexican Orange Blossom 'Aztec Pearl'		30-40	3L	Bushy; 5 brks	25.00	4	394
Shrub	Sarcococca confusa	a Sweet Box		20-30	2L	Bushy; 4 brks	10.00	4	158
Shrub	Skimmia japonica 'Rubella'	Japanese Skimmia 'Rubella'		30-40	3L	Bushy; 3 brks	25.00	4	394
Shrub	Spiraea nipponica 'Snowmound'	Japanese Spiraea 'Snowmound'		40-60	3L	Branched; 5 brks	10.00	4	158
Shrub	Viburnum davidii	David Viburnum		20-30	3L	Bushy; 3 brks	20.00	4	315
Shrub	Viburnum opulus 'Compactum'	Gelder Rose 'Compactum'		30-40	3L	Bushy; 4 brks	10.00	4	158

Building Perimeter Planting Mix

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per m²	Number
Shrub	Hebe 'Great Orme'	Shrubby Veronica 'Great Orme'		30-40	3L	Bushy; 3 brks	10.00	4	84
Shrub	Lavandula stoechas pedunculata	French Lavender		15-20	2L	Bushy; 5 brks	20.00	4	167
Shrub	Perovskia 'Blue Spire'	Russian Sage 'Blue Spire'		30-40	3L	Bushy; 3 brks	20.00	4	167
Shrub	Santolina virens	Green Cotton Lavender		20-30	2L	Bushy; 5 brks	10.00	4	84
Shrub	Sarcococca confusa	a Sweet Box		20-30	2L	Bushy; 4 brks	10.00	4	84
Shrub	Skimmia japonica 'Rubella'	Japanese Skimmia 'Rubella'		30-40	3L	Bushy; 3 brks	10.00	4	84
Shrub	Viburnum davidii	David Viburnum		20-30	3L	Bushy; 3 brks	20.00	4	167

Meadow Seed Mixture for Swales

Area: 228.000m² Sow Rate: 4g/m² Amount: 912g Cost: (please input) /g

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %		Number
Wildflower	Achillea millefolium	Yarrow				Seed; British native-origin	0.50		5
Grass	Agrostis capillaris	Common Bent				Seed; commercial-origin	12.00		109
Grass	Alopecurus pratensis	Meadow Foxtail				Seed; British native-origin	5.00		46
Grass	Anthoxanthum odoratum	Sweet Vernal Grass				Seed; British native-origin	1.00		9
Wildflower	Betonica officinalis	Betony				Seed; British native-origin	0.50		5

Wildflower	Centaurea nigra	Common Knapweed				Seed: British native-origin	1.00		9
Grass	Cynosurus cristatus	Crested Dog's-tail				Seed: commercial-origin	36.00		328
Grass	Deschampsia cespitosa	Tufted Hair Grass				Seed: British native-origin	1.00		9
Grass	Festuca rubra juncea	Slender Creeping Red Fescue				Seed: commercial-origin	25.00		228
Wildflower	Filipendula vulgaris	Dropwort				Seed: British native-origin	1.00		9
Wildflower	Galium verum	Lady's Bedstraw				Seed: British native-origin	1.60		15
Wildflower	Leucanthemum vulgare	Ox-eye Daisy				Seed: British native-origin	1.50		14
Wildflower	Lotus pedunculatus	Greater Bird's-foot Trefoil				Seed: British native-origin	0.30		3
Wildflower	Plantago lanceolata	Ribwort Plantain				Seed: British native-origin	1.00		9
Wildflower	Primula veris	Cowslip				Seed: British native-origin	1.00		9
Wildflower	Prunella vulgaris	Selfheal				Seed: British native-origin	2.00		18
Wildflower	Ranunculus acris	Meadow Buttercup				Seed: British native-origin	3.00		27
Wildflower	Rhinanthus minor	Yellow Rattle				Seed: British native-origin	1.60		15
Wildflower	Rumex acetosa	Common Sorrel				Seed: British native-origin	1.20		11
Wildflower	Silaum silaus	Pepper Saxifrage				Seed: British native-origin	1.50		14
Wildflower	Silene flos-cuculi	Ragged Robin				Seed: British native-origin	0.30		3
Wildflower	Succisa pratensis	Devil's Bit Scabious				Seed: British native-origin	0.20		2
Wildflower	Vicia cracca	Tufted Vetch				Seed: British native-origin	1.80		16

General purpose turf seed mix

Area: 1945.000m² Sow Rate: 50g/m² Amount: 97250g Cost: (please input) /g

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %		Number
Grass	Agrostis castellana	Highland Bent				Seed: commercial-origin	10.00		9725
Grass	Festuca rubra juncea	Slender Creeping Red Fescue				Seed: commercial-origin	50.00		48625
Grass	Lolium perenne	Perennial Rye Grass				Seed: commercial-origin	20.00		19450
Grass	Poa pratensis	Smooth-stalked Meadow Grass				Seed: commercial-origin	20.00		19450

Standard General Purpose Meadow Seed Mix

Area: 662.000m² Sow Rate: 4g/m² Amount: 2648g Cost: (please input) /g

Plant Group	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %		Number
Wildflower	Achillea millefolium	Yarrow				Seed: British native-origin	0.50		13
Grass	Agrostis capillaris	Common Bent				Seed: commercial-origin	8.00		212
Wildflower	Centaurea nigra	Common Knapweed				Seed: British native-origin	0.50		13
Grass	Cynosurus cristatus	Crested Dog's-tail				Seed: commercial-origin	40.00		1059
Wildflower	Daucus carota	Wild Carrot				Seed: British native-origin	1.00		26
Grass	Festuca rubra juncea	Slender Creeping Red Fescue				Seed: commercial-origin	28.00		741
Wildflower	Galium verum	Lady's Bedstraw				Seed: British native-origin	2.50		66
Wildflower	Knautia arvensis	Field Scabious				Seed: British native-origin	1.00		26
Wildflower	Leucanthemum vulgare	Ox-eye Daisy				Seed: British native-origin	2.00		53
Wildflower	Lotus corniculatus	Bird's-foot Trefoil				Seed: British native-origin	0.20		5
Grass	Phleum bertolonii	Smaller Cat's-Tail				Seed: commercial-origin	4.00		106
Wildflower	Plantago lanceolata	Ribwort Plantain				Seed: British native-origin	1.00		26
Wildflower	Primula veris	Cowslip				Seed: British native-origin	1.50		40
Wildflower	Prunella vulgaris	Selfheal				Seed: British native-origin	2.50		66
Wildflower	Ranunculus acris	Meadow Buttercup				Seed: British native-origin	3.00		79
Wildflower	Ranunculus bulbosus	Bulbous Buttercup				Seed: British native-origin	2.00		53
Wildflower	Rhinanthus minor	Yellow Rattle				Seed: British native-origin	1.50		40
Wildflower	Rumex acetosa	Common Sorrel				Seed: British native-origin	0.80		21