

**LAND ADJACENT TO NO.4 CHALK PIT COTTAGES,
GREEN FARM ROAD, SHORNE, KENT, DA12 3HN
BIODIVERSITY NET GAIN REPORT**



October 2023

Ms S. Randhawa

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Ms S. Randhawa

Contents Record

This Report has been issued and amended as follows:

Issue	Revision	Description	Date	Signed
1	Final	Issue to Client	26.10.23	APL

Approved by: A. P. Leftwich

Signed: _____

Position: Director

Date: _____

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1. INTRODUCTION

- 1.1 Ms S. Randhawa has commissioned The Ash Partnership (UK) Ltd. to undertake a Biodiversity Net Gain (BNG) assessment of land beside No.4 Chalk Pit Cottages, Green Farm Lane, Shorne, Kent, TN26 2BS, hereafter referred to as the 'Site'.
- 1.2 The Site is bound to the south by No. 4 Chalk Pit Cottages, to the east by Green Farm Lane, to the north by No.1 Longten's Cottages and to the west by an ill-defined field edge, see *Site Location and Existing Block Plans* Dwg. 4074-001 dated June 2022 by Kent Planning Consultancy.
- 1.3 It is proposed to clear the Site vegetation and erect a new dwelling house, the surrounding landscaping to be designed to deliver biodiversity gain in excess of 10% by creating (i) floristically species-rich boundary scrub, (ii) wildflower grassland and (iii) bat roosting features on the new building.
- 1.4 As required for a Planning Application, the development needs to demonstrate how it will deliver a BNG in excess of the 10% threshold. This BNG will be based on habitat creation within the Site.

2. METHODOLOGY

- 2.1 This Report seeks to establish at least a 10% net gain in biodiversity following the proposed development, as established using the DEFRA Biodiversity Metric Version 4.0.

Habitat Classification & Distinctiveness

- 2.2 Based on the JNCC (2003) principal habitat types, the various habitat areas are inputted into the DEFRA Biodiversity Metric Version 4.0 using the UK Habitat Classification <https://ecountability.co.uk/ukhabworkinggroup-ukhab/>.
- 2.3 Each habitat has a predetermined distinctiveness score that reflects how rare that habitat is within England and whether the habitat is considered a Priority Habitat in accordance with Section 41 of the Natural Environment and Rural Communities Act, 2006. Distinctiveness scores range from 'Low' to 'Very High'.

Habitat Condition

- 2.4 The condition of each habitat is assessed using the technical supplement to the Metric, using a set of criteria against which each habitat type is assessed. Depending on how many of the criteria are relevant to the particular habitat, the condition can then be classified on a scale ranging from 'Poor' to 'Good' with a corresponding score of 1 to 3.

Habitat Significance

- 2.5 The final part of the Metric baseline calculation is that of strategic significance within the wider landscape. The Metric will add additional value to habitats that are regarded as being of strategic significance within a preferred location for biodiversity i.e. within an area formally identified within local strategy. This may include Biodiversity Action Plans, Nature Recovery Areas and green infrastructure strategies.

3. RESULTS

Habitat Context

- 3.1 The Site lies within Network Enhancement Zone 1, as shown on Appendix 1. This designation is defined as land connecting existing patches of primary and associated habitats which is likely to be suitable for creation of the primary habitat – see *National Habitat Network Maps: User Guidance v.2* (Natural England, May 2020). Within this Zone, Natural England consider that it is desirable to undertake actions that improve its biodiversity – through land management changes and/or green infrastructure provisions.

Phase I Habitat Survey

- 3.2 The Site was initially appraised in February 2023 and subsequently re-surveyed on 8th September 2023, see Phase I Habitat Plan (Figure 1).
- 3.3 The majority of the site was composed of grassland, buildings and hardstanding, see Phase I Habitat Plan (Figure 1). The following principal habitats were present, listed below in accordance with JNCC (2003) coding:
- Scattered Broadleaf Trees [**A3.1**];
 - Dense & Scattered Scrub [**A2.1** & **A2.2**];
 - Ornamental Shrubs [**J1.4**];
 - Amenity Grassland [**J1.2**]; and
 - Tall Ruderal Vegetation [**C3.1**].

4. EVALUATION & RECOMMENDATIONS

Habitat Classification & Distinctiveness

4.1 The equivalent UKHab habitats within the Site are as follows:

- Scattered Broad-leaf Trees [A3.1] = 'Individual Trees – Rural Tree'
- Dense Scrub [A2.1] = 'Heathland & Shrub – Bramble Scrub'
- Tall Ruderal Vegetation [C3.1] = 'Sparsely Vegetated Ground – Tall Forbs'
- Amenity Grassland [J1.2] = 'Grassland – Modified Grassland'
- Ornamental Shrubs [J1.4] = 'Urban – Introduced Shrub'

4.2 Using the Phase I Translocation Tool for the UKHab habitats, their distinctiveness would be defined as follows:

- Individual Trees – Rural Tree = **Medium (4)**
- Heathland & Shrub – Bramble Scrub = **Medium (4)**
- Sparsely Vegetated Ground – Tall Forbs = **Low (2)**
- Grassland – Modified Grassland = **Low (2)**
- Urban – Introduced Shrub = **Low (2)**

Habitat Condition

4.3 Urban habitats such as hardstanding are pre-assigned a condition score within the Metric and are not subject to a condition assessment. All other UKHab habitats use qualifying criteria to establish the condition.

4.4 The UKHab habitats within the Site would be assessed as follows:

- Individual Trees – Rural Tree = **Good (3)** [score of 4]
- Heathland & Shrub – Bramble Scrub = **n/a (1)**
- Sparsely Vegetated Ground – Tall Forbs = **Poor (1)**
- Grassland – Modified Grassland = **Poor (1)**
- Urban – Introduced Shrub = **Poor (1)**

Habitat Significance

- 4.5 None of the remaining habitat types present would be regarded as being of any strategic significance as they are common and widespread, and easily re-creatable. As such they are not recognised within any local strategies.

Baseline Metric Calculation

- 4.6 The results of the DEFRA Biodiversity Metric Version 4.0 calculation are presented in Appendix 2.

- 4.7 The calculations have used the following baseline information:

Individual Trees – Rural Tree = 1sqm x Medium (4) x Good (1)

Heathland & Shrub – Bramble Scrub = 824.9sqm x Medium (4) x n/a (1)

Sparsely Vegetated Ground – Tall Forbs = 641.6sqm x Low (2) x Poor (1)

Grassland – Modified Grassland = 215sqm x Low (2) x Poor (1)

Urban – Introduced Shrub = 105sqm x Low (2) x n/a (1)

Constraints & Opportunities

- 4.8 Proposed biodiversity creation will involve the following habitat creation, as shown in the Proposed Habitat Layout in Appendix 2:

- **Create 93.9sqm of new Tussocky Grassland – using Emorsgate EM10 seed mix.**

This is a tussocky wildflower grassland that provides cover and requires little maintenance.

- **Create 1607sqm of Amenity Grassland (as Lawns) – using Emorsgate EL1 seed mix.**

This is a predominantly grass mix that has a selection of wildflowers, and which would encourage a type of Poor Semi-Improved Grassland within the lawns.

- **Create 241.7sqm of Species-rich Scrub in the corners of the rear garden, using whips planted at 25cm centres, and the following suite of species:**

Field Maple *Acer campestre*;
Silver Birch *Betula pendula*;
Hazel *Corylus avellana*;
Hawthorn *Crataegus monogyna*;
Holly *Ilex aquifolium*;
Blackthorn *Prunus spinosa*;
Elder *Sambucus nigra*; and

Rowan *Sorbus aucuparia*.

- **Create 132.8m of New Hedgerows – using a staggered double row of whips planted at 30cm centres**, and the following suite of species:

Field Maple *Acer campestre*;
Silver Birch *Betula pendula*;
Hazel *Corylus avellana*;
Hawthorn *Crataegus monogyna*;
Holly *Ilex aquifolium*;
Blackthorn *Prunus spinosa*;
Elder *Sambucus nigra*; and
Rowan *Sorbus aucuparia*.

Biodiversity Nett Gain

- 4.9 The DEFRA Biodiversity Metric Version 4.0 has calculated that the proposed landscaping will result in a Biodiversity Nett Gain (BNG) of 20.01% and is therefore in excess of the 10% BNG threshold that is required for planning purposes, see Appendix 3.
- 4.10 In addition, there will be 1.04 hedgerow units that are not included in this calculation as there is no baseline hedgerow from which the percentage increase can be calculated.
- 4.11 The proposed re-development is therefore BNG compliant.

FIGURES



Legend:

-  Scattered Broadleaf Trees [A3.1]
-  Dense & Scattered Scrub [A2.1 & A2.2]
-  Ornamental Shrubs [J1.4]
-  Amenity Grassland [J1.2]
-  Tall Ruderal Vegetation [C3.1]

Species Abbreviations:

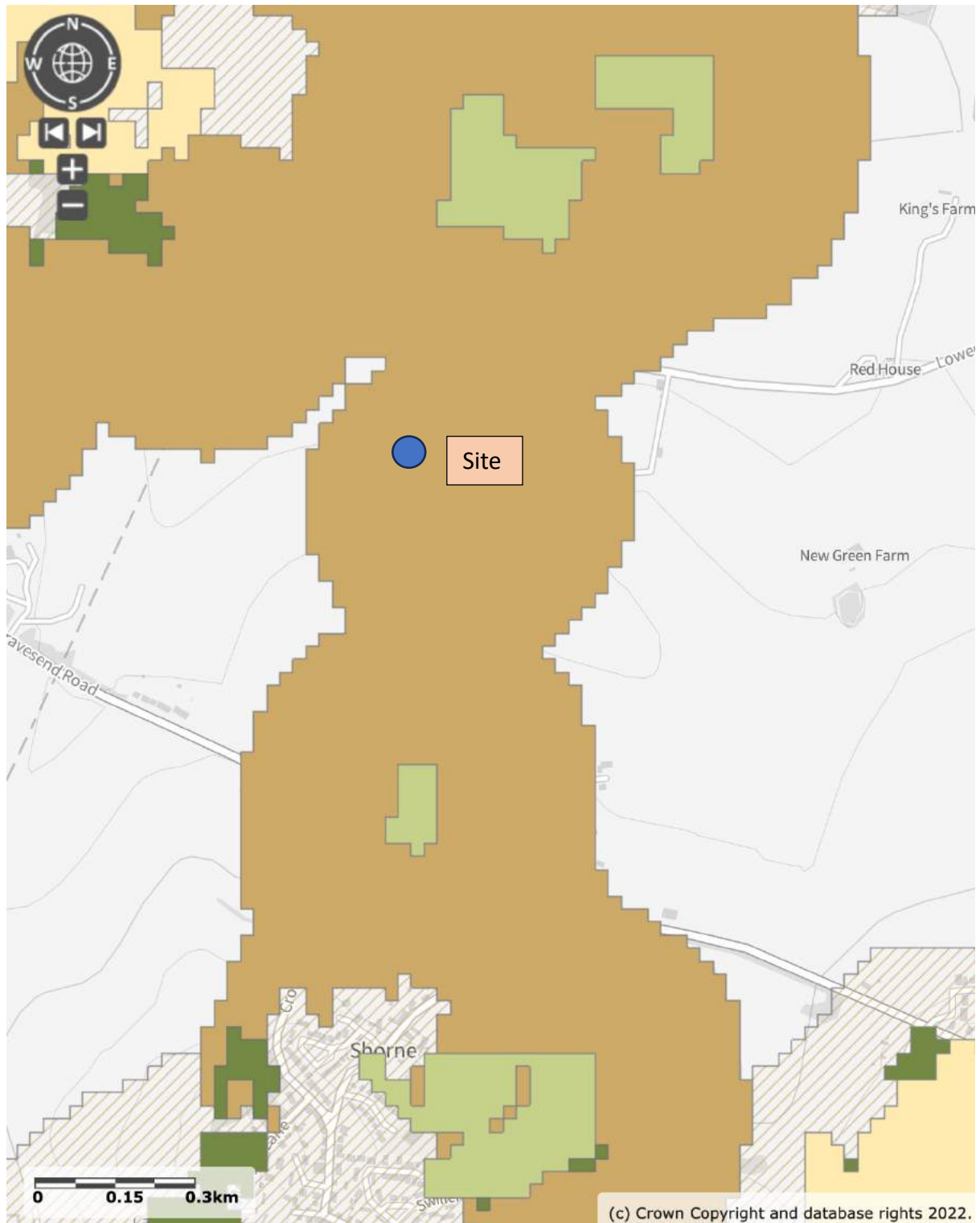
- Amin - *Arctium minor* s.l.
- Avul - *Artemisia vulgaris*
- Fbal - *Fallopia baldschuanica*
- Hhel - *Hedera helix*
- Lbar - *Lycium barbarum*
- Pavi - *Prunus avium*
- Rfru - *Rubus fruticosus* agg.
- Sarv - *Sonchus arvensis*
- Udio - *Urtica dioica*

FIGURE 1 – PHASE I HABITAT PLAN

APPENDICES

Appendix 1

APPENDIX 1 – NATIONAL HABITAT NETWORK



Appendix 2



Notes

Do Not Scale (unless for the purposes of planning).
Report all discrepancies, errors and omissions.
Verify all dimensions on site before commencing any work on site or preparing shop drawings.
All materials, components and workmanship are to comply with the relevant British Standards, Codes of Practice, and appropriate manufacturers recommendations that from time to time shall apply.
For all specialist work, see relevant drawings.
This drawing is copyright of Kent Design Studio Ltd

Rev	Date	Description

0

2

4

6

8

10m

Scale - 1:200

KENT DESIGN STUDIO

KDS

web - www.kentdesignstudio.co.uk tel - 01580 230413

Scale

1:200 @ A1

Date

January 2023

PROPOSED

Project Title

Proposed Works at:
Land Adjacent to
4 Chalk Pit Cottages,
Green Farm Lane,
Shorne,
Gravesend,
DA12 3HN

Description

Proposed Block Plan

Drawing Number

4074 - 004

Drawn By - AD / NG

Appendix 3

APPENDIX 3 – BIODIVERSITY NET GAIN CALCULATION

Land beside No.4 Chalk Pit Cottages		Return to results menu	
Headline Results			
Scroll down for final results %			
On-site baseline	Habitat units	0.52	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site post-intervention (including habitat retention, creation & enhancement)	Habitat units	0.63	
	Hedgerow units	1.04	
	Watercourse units	0.00	
On-site net change (units & percentage)	Habitat units	0.10	20.01%
	Hedgerow units	1.04	N/A
	Watercourse units	0.00	0.00%
Zero baseline units - % cannot be calculated			
Off-site baseline	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (including habitat retention, creation & enhancement)	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	Habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.10	
	Hedgerow units	1.04	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
FINAL RESULTS			
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.10	
	Hedgerow units	1.04	
	Watercourse units	0.00	
Total net % change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	20.01%	
	Hedgerow units	N/A	
	Watercourse units	0.00%	
0 baseline units - % cannot be calculated			

Based on DEFRA Biodiversity Metric Version 4.0