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BASELINE HABITAT CONDITION ASSESSMENT

LAND AT BARWICK ROAD

DOVER, KENT

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1. INTRODUCTION

1.1 This report details a Habitat Survey and Condition Assessment undertaken in respect of proposed development at Land at Barwick Road, Dover, Kent (site centred TR 29795 42019).

COMMISSION

1.2 Native Ecology was commissioned by Oliver Davis Homes in July 2022 to undertake a Biodiversity Net Gain Feasibility Assessment of the Site, including a Baseline Habitat Condition Assessment.

APPLICATION SITE

1.3 The application site, hereafter referred to as 'the Site', comprises a previous industrial site which has lain derelict for a number of years. The majority of habitat now comprises bramble scrub and open mosaic on previously developed land. Three buildings, areas of hard standing and mixed scrub are also present. The Site extends to approximately 2.25ha.

1.4 An enhancement area, to the south of the Site, is proposed to provide habitat compensation. This extends to 0.3ha and currently comprises bramble scrub. A sycamore tree line is also present. The tree line will not be impacted and was therefore not included in the assessment.

1.5 Figure 2, Section 3 provides a site location plan showing the application site boundary.

PURPOSE OF REPORT

1.6 The objectives of the report are to:

- Provide a Condition Assessment for baseline habitat types identified during a Preliminary Ecological Appraisal;
- Assign each habitat parcel a unique reference ID based on habitat type and condition;
- Inform the baseline biodiversity unit calculations within the Metric;
- Inform habitat design, creation and enhancement measures by defining baseline conditions; and,
- Provide a baseline on which to assess future management and maintenance plans associated with the restoration or enhancement of habitats through improvement of condition.

2. SITE LOCATION PLAN

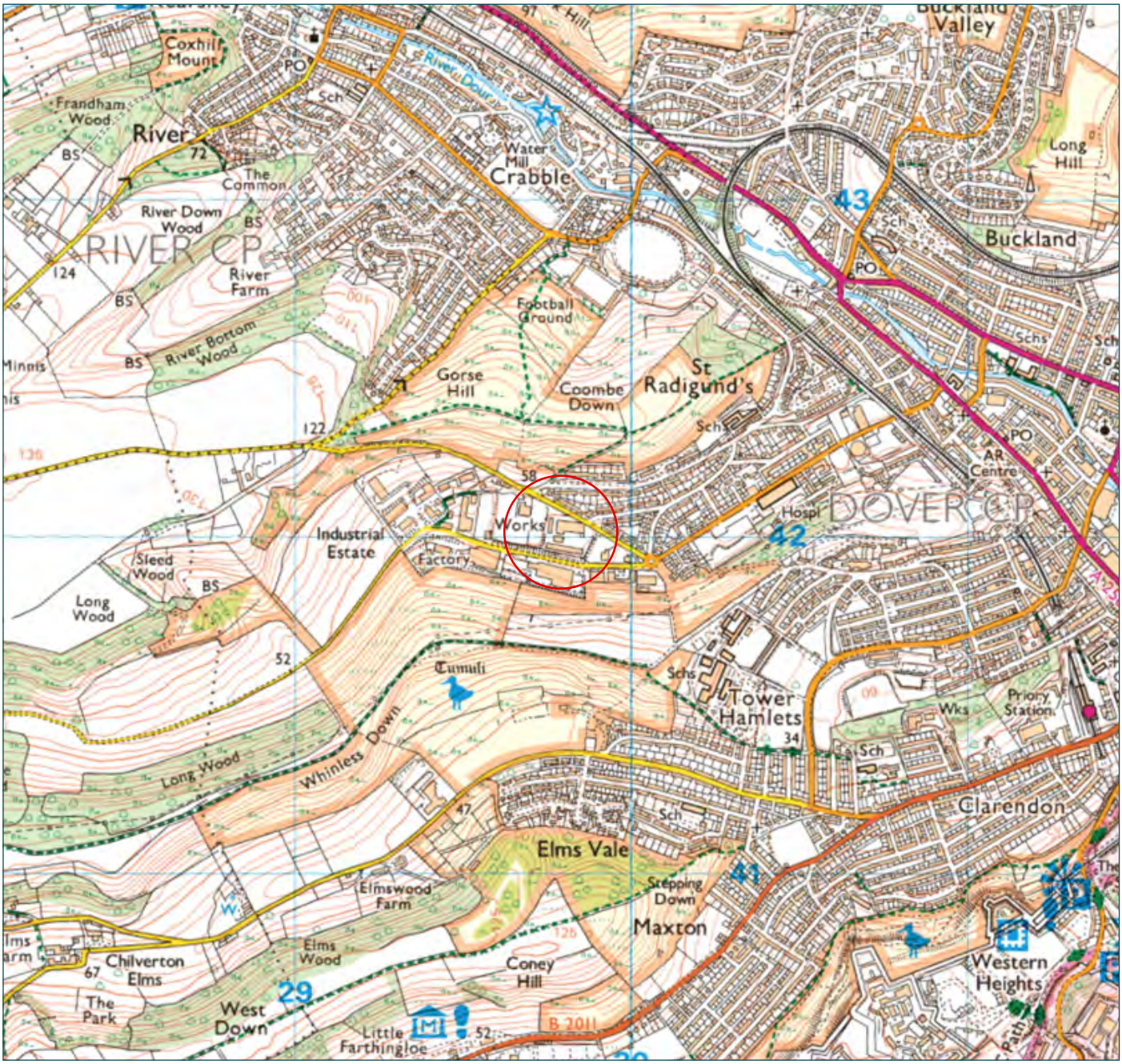

Figure 1. Location of development site. Reproduced from OS Explorer 138 1:25,000 Ordnance Survey © Crown copyright and database rights [2017] (Site centred TR 29795 42019).

3. SITE BOUNDARY PLAN

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4. METHODOLOGY

DESK STUDY

Data search

4.1 The Kent Landscape Information System (KLIS) website and MAGIC Map were used to identify any pre-assigned habitat types within and adjacent to the Site, including Habitats of Principle Importance and irreplaceable habitats, such as ancient woodland. In addition a the search included any statutory and non-statutory designated sites within and adjacent to the Site.

4.2 Up to date Google Earth aerial images were used to identify recent and historic land use of the site, as well as to identify any recent or historic damage to the habitats within and around the site which might impact the condition of any baseline habitats.

SITE VISIT

4.3 A Site visit was undertaken by Calista Tardivel of Native Ecology on 27th July 2022. A second visit was undertaken on the 29th September to assess habitats within the proposed enhancement area and the current status of the successional change between open mosaic habitats on previously developed land and bramble scrub within the Site.

Table 1. Survey details

Habitat Survey 1	
Survey date	27th July 2022
Surveyor	Cali Tardivel BSc MSc QCIEEM
Time on site	12:00- 14:00
Weather	22°C, scattered cloud cover, BF 3, no rain, ground dry
Habitat Survey 2	
Survey date	29th September 2022
Surveyor	Cali Tardivel BSc MSc QCIEEM
Time on site	10:00- 11:30
Weather	12°C, scattered cloud cover, BF 2, no rain, ground damp

Habitat Survey

4.4 Habitats within the Site were mapped and classified in accordance with the The Professional Edition of the UK Habitat Classification. This map was then used to confirm the baseline habitats present during the Habitat Condition Assessment.

4.5 Habitat features were recorded in areas, lines and points, with each feature allocated a single primary habitat from the UKHAB hierarchy, along with secondary codes that are used to describe that feature in more depth.

4.6 The UKHAB hierarchy comprises of 5 levels, which provide an increasing level of detail. For this site assessment, habitats have been mapped for Primary Habitats up to Level 4 in line with Biodiversity Metric 3.0. Where the Metric 3.0 categories for habitat type go beyond Level 4, these habitats are then used for the baseline condition assessment.

4.7 A detailed botanical species list was recorded for each habitat parcel by an experienced botanist during the site visit.

Digital mapping

4.8 All relevant site data was collated on the digital mapping program 'Input/Mergin' which was then synchronised to the geographical mapping system 'QGIS' in order to be refined and measure habitat parcels.

4.9 The fine scale Minimum Mapping Unit (MMU) was used to complete the dataset. This includes area habitats from 25m² and 5m for linear features. This fine scale method allows subtle habitat differences to be considered.

4.10 Anything smaller than the MMU was mapped as a point and identified with a target note.

Habitat Condition Assessment

4.11 The Habitat Condition Assessment was carried out following the technical guidance that accompanies Defra Biodiversity Metric 3.1 (July, 2021).

4.12 Individual habitat parcels were assessed against the criterion for each indicator of condition and the results recorded as 'pass' or 'fail' for each, or for woodland, a score of 1, 2 or 3 was assigned. These scores were then totalled and the scoring instructions within each condition sheet used to give an outcome for the condition assessment of each habitat parcel as either 'Good', 'Moderate' or 'Poor' condition.

4.13 Certain habitats are allocated a fixed condition score and do not need to be assessed. These are marked 'No assessment required – condition fixed at 'Poor'' for some Low distinctiveness habitats.

4.14 Habitats with very Low distinctiveness are listed as N/A.

4.15 The condition of hedgerows and trees were assessed using the appropriate condition sheets. Condition is assessed against defined attributes and determined according to the number of 'fails' generated from each functional group. Groups are based on key ecological and physical characteristics of hedgerows and trees.

4.16 The location and extent of each habitat parcel and linear feature was digitally mapped in the field to produce a Habitat Condition Assessment Plan (shown in Section 5).

LIMITATIONS AND ASSUMPTIONS

4.17 For most habitat types the optimal period for botanical surveys is between April and September. The survey was undertaken between April and September, which is the optimal survey period for most plant species, reducing any temporal limitation of the survey.

4.18 The habitat type “open mosaic habitats on previously developed land” is present within the Site. During the site visits undertaken on the 27th July and 29th September this habitat was showing signs of successional transition to bramble scrub. Aerial images show that the Site has been managed with regular scrub clearance which has led the retention of open mosaic habitat within the Site. In the absence of this management the habitat will likely rapidly transition to bramble scrub, a significantly lower value habitat.

5. HABITAT CONDITION ASSESSMENT PLAN

See overleaf

0 10 20 30 40 50 m

Legend

- Site boundary
- Enhancement area boundary
- Mixed scrub
- Bramble scrub
- Open mosaic habitats on previously developed land
- Developed land, sealed surface
- Buildings

Note:

Habitats mapped by eye based on UK Habitat Classification following a site visit undertaken on 27/09/2022.

Numbers refer to area parcel references. 'H' numbers refer to hedgerow.

Habitat Condition
* poor habitat condition
** moderate habitat conition
*** good habitat condition
n/a condition assessment not applicable

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Pre Development Habitat Plan

Barwick Road
Dover
Kent

Drawing ref:	1034_DR03_Rev A
Revision:	-
Date:	29/09/2022
Scale:	1:800
Paper size:	A3

6. RESULTS

HABITAT DESCRIPTION & CONDITION ASSESSMENT

6.1 Table 2, below describes the area habitats present in accordance with UKHab / Defra Metric 3.1.

6.2 Condition assessment results for each habitat parcel are also provided below. Grading criteria are in accordance the Defra Metric 3.1 Condition Assessment Sheets.

6.3 The full Condition Assessment results are provided in the accompanying, Habitat Condition Assessment Sheets Pro forma.

Table 2. Area habitat types present within the Site

PARCEL NO.	AREA (HA)	METRIC 3.0 HABITAT CATEGORY	DESCRIPTION	CONDITION
1	0.597	Open mosaic habitats on previously developed land	Aerial images obtained from Google Earth show that the Site was used for industrial purposes since at least 1960. During this time usage of the Site has varied, but has resulted in severe modification of the substrate site-wide. A number of spoil/ rubble heaps are present and bare, loose substrate is present in both large and small patches. There is a general site-wide absence of organic matter accumulation. Habitat comprises a mosaic of early successional vegetation, ruderals, mosses, bare ground and patches of bramble scrub. Species include perforate st John's wort (*Hypericum perforatum*), teasel (*Dipsacus fullonum*), *Meliot sp.*, yarrow (*Achillea millefolium*), wild carrot (*Daucus carota carota*), mugwort (*Artemisia vulgaris*), wild thyme (*Thymus polytrichus*), red clover (*Trifolium pratense*), ribwort plantain (*Plantago lanceolata*) and vipers bugloss (*Echium vulgare*), prickly sow thistle (*Sonchus asper*), old man's beard (*Clematis vitalba*), nettle (*Urtica dioica*), common vervain (*Verbena lasiostachys*), burr medick (*Medicago minim*a), spear thistle (*Cirsium vulgare*), fennel (*Foeniculum vulgare*), greater willowherb (*Epilobium hirsutum*) and white clover (*Trifolium repens*). Bramble scrub is spreading throughout the Site. Aerial images suggest that scrub has been routinely cleared from the Site, preventing the succession of the open mosaic habitat into bramble/mixed scrub. It is likely that this habitat will rapidly transition to bramble scrub in the absence of management.	Moderate
2	0.330	Developed land, sealed surface	Areas of concrete hardstanding are still present within the Site, although ruderal growth is breaking through in many places.	n/a

PARCEL NO.	AREA (HA)	METRIC 3.0 HABITAT CATEGORY	DESCRIPTION	CONDITION
3	0.296	Developed land, sealed surface	Two derelict warehouse buildings are present within the Site.	n/a
4	0.178			
5	0.016		A derelict brick built building is present.	
6	0.058	Mixed scrub	An area of mixed scrub is present within a metal framework (possible derelict building). Species include dogwood (*Cornus sanguinea*), sycamore (*Acer pseudoplatanus*), hawthorn (*Crataegus monogyna*), rose (*Rosa sp.*) and bramble (*Rubus fruticosus*).	Poor
7	0.002	Developed land, sealed surface	A small timber building is present in the north west corner of the Site.	n/a
8	0.789	Bramble scrub	Areas of bramble scrub are present within the Site, particularly around the south and west boundaries, associated with the northern warehouse building and on the bank which runs from the south to the north of the Site.	n/a
9	0.229		The enhancement area comprises bramble scrub. Species include bramble, teasel (*Dipsacus fullonum*), elder (*Sambucus nigra*), buddleia (*Buddleia davidii*), old man's beard and hedge bindweed (*Calystegia sepium*).	

7. PHOTOGRAPHS

Photograph 1: Hard standing and buildings.

Photograph 2: Ruderal vegetation

Photograph 3: Open mosaic habitat with areas of scrub, early successional and ruderal vegetation, mosses and bare ground.

Photograph 4: Mixed scrub

Photograph 5: Developing bramble scrub

Photograph 6: Bramble scrub

8. REFERENCES

- CIEEM (2019). Biodiversity net gain. Good practice principles for development. A practical guide.
- CIEEM (2021). Biodiversity Net Gain Report & Audit Templates. Version 1.
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