

Biodiversity Net Gain Assessment

The Downs
Stebbing
Essex
CM6 3SH

September 2023

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NON-TECHNICAL SUMMARY

This report assesses the Biodiversity Net Gain or loss anticipated as a result of the proposed development at The Downs, Stebbing. The proposed development involves the erection of 28 residential dwellings (comprising 14 affordable & 11 private market homes together with 3 self-build plots) and local affordable employment unit/flexible community space; provision of public open space and associated local amenity facilities (activating Local Green Space allocation); together with integrated landscaping and car parking (to include additional community parking facility).

The baseline habitat calculations are based on site habitat data collected prior to development-related activities (see report for details). The post-development habitat calculations are based on proposed landscape plans (see report for details).

The Biodiversity Net Gain Assessment relies on a number of assumptions which are detailed within this report. The Biodiversity Metric calculator spreadsheet (Microsoft excel format) contains full details of the calculations and results. As such, the Biodiversity Metric calculator spreadsheet should always accompany this report and vice versa.

Key results:

The development is estimated to result in a Biodiversity Net Gain of **+8.09 biodiversity units (+18.60%)**, compared with the baseline habitats present. This is largely due to the retention of trees and valuable habitats, and the proposed enhancement of woodland and grassland habitat.

1 INTRODUCTION

Background

- 1.1 This report has been instructed by Montare.
- 1.2 The proposed development involves the erection of 28 residential dwellings (comprising 14 affordable & 11 private market homes together with 3 self-build plots) and local affordable employment unit/flexible community space; provision of public open space and associated local amenity facilities (activating Local Green Space allocation); together with integrated landscaping and car parking (to include additional community parking facility).

Purpose of the report

- 1.3 This report assesses the biodiversity value of the existing habitats on site and the proposed changes to the development site. This report provides an overview of the change in Biodiversity Value (Biodiversity Net Gain/Loss) generated by the proposals.

Site description and location

- 1.4 The central grid reference for the site is TL 65832 24546. The site covers approximately 5.67 hectares.
- 1.5 The existing site is dominated by grassland, scrub and woodland habitats with ditches. Adjacent to the site on the east is Stebbing village. The wider landscape includes large areas of arable farmland.

Limitations

- 1.6 As the attributes of the site and its habitats may change over time, this report is broadly considered valid for a duration of **two years**, after which time it is recommended that an update site assessment is undertaken.
- 1.7 Biodiversity Net Gain assessments and calculations can only provide a proxy measure for the real long-term biodiversity changes that occur on any given site.
- 1.8 This assessment has been produced using the information available at this stage. As such, the assessment is based on a number of important assumptions. This report aims to make any such assumptions explicit so that they can be reviewed or updated as appropriate.

- 1.9 Whilst the Biodiversity Metric tool assesses the numerical losses and gains of habitats affected as part of the development, it does not include certain other important outcomes or benefits which cannot be assessed numerically.
- 1.10 The site was accessed during July 2023, a time when the majority of plant species would be expected to be evident, particularly extensive stands of invasive species such as Japanese knotweed (*Fallopia japonica*) or giant hogweed (*Heracleum mantegazzianum*). Where further botanical or invasive species surveys are considered necessary, these have been recommended within this report.
- 1.11 All areas were accessed fully except a small overgrown area to the south of the site due to dense nettles and brambles. The trees to this southern area have not been mapped due to limited access (See assumptions 2.12).

Planning Policy

- 1.12 The National Planning Policy Framework (NPPF, 2021) section 174d states that planning policies and decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity. NPPF section 179b states that plans should identify and pursue opportunities for securing measurable net gains for biodiversity.

Uttlesford Local Plan – Adopted January 2005

- 1.13 Uttlesford are currently updating their local plan and it is not available at time of this report. The 2005 plan has been used in relation to this report.
- 1.14 **Policy ENV8** – Other Landscape Elements of Importance for Nature Conservation Development that may adversely affect these landscape elements;
- Hedgerows
 - Linear tree belts
 - Larger semi natural or ancient woodlands
 - Semi-natural grasslands
 - Green lanes and special verges
 - Orchards Plantations
 - Ponds reservoirs
 - River corridors

- Linear wetland features
- Networks or patterns of other locally important habitats.

will only be permitted if the following criteria apply:

- a) The need for the development outweighs the need to retain the elements for their importance to wild fauna and flora; Uttlesford Local Plan – Adopted January 2005 29
- b) Mitigation measures are provided that would compensate for the harm and reinstate the nature conservation value of the locality. Appropriate management of these elements will be encouraged through the use of conditions and planning obligations.

2 METHODOLOGY

Pre-development habitat information

- 2.1 This report is based on data collected during a survey undertaken on 17th July 2023 by Bradley Collins of Tim Moya Associates, an experienced Consultant Ecologist and Qualifying Member of the Chartered Institute for Ecology and Environmental Management (CIEEM). During the survey the weather conditions were not considered to pose any limitations to the survey. The vegetation and habitat types within the site were noted during the survey in accordance with the categories specified in the UK Habitat Classification (“UKHab”) (Butcher et al., 2020a). Dominant plant species were recorded for each habitat present.
- 2.2 The above-mentioned site visit was preceded by a Preliminary Ecological Appraisal survey, undertaken in May 2021 by Gemma Holmes ACIEEM, of Hybrid Ecology (report published September 2021). The habitats recorded within both surveys as well as a national vegetation classification (NVC) survey have assisted in the classification of habitats for the biodiversity net gain assessment (MKA Ecology, November 2022 Land at Stebbing, Essex: National Vegetation Classification Survey).
- 2.3 For reference, the pre-development habitat plan is included in Appendix 1 of this report.

Post-development habitat information

- 2.4 The post-development habitat calculations are based on the following supplied plans, showing the proposed development layout and landscaping (at this stage):
 - Landscape Master Plan for North Field (A&B), Austin Design Works, 16.09.2023 (SD 200).
 - Landscape Master Plan for South Field (C&D), Austin Design Works, 16.09.2023 (SD 201).
- 2.5 For reference, the post-development habitat plan is included in Appendix 2 of this report. Please note, this plan may be superseded or updated without warranting an update of this report, if the changes are insignificant to the impact of the development on biodiversity. The version included within this report is for indicative purposes only and should not be relied upon as the definitive version.

Condition Assessment

- 2.6 Part of the Biodiversity Net Gain Assessment process requires an estimate for the 'condition' of existing habitats, as defined by the Biodiversity Metric 4.0 Technical Supplement (Natural England, 2023).
- 2.7 The pre-development site survey described above has included an on-site assessment of each habitat type in accordance with the condition criteria. The survey was undertaken at an appropriate time of year to be able to sufficiently assess the condition of the habitat types present within the site. The condition categories for each habitat type are given within the Biodiversity Metric calculator accompanying this report.

Biodiversity Net Gain calculations

- 2.8 The value of the on-site habitats is calculated using the Biodiversity Metric 4.0 calculation tool (Natural England, 2023). Once the biodiversity value of the baseline and proposed habitats is calculated, this tool is then used to measure the anticipated overall Biodiversity Net Gain or loss of the proposed development.
- 2.9 The value for biodiversity of a habitat is measured using 'biodiversity units'. These are calculated based on the type of habitat (based on the UK Habitat Classification ("UKHab")) and the size and condition of each habitat parcel. The metric also considers whether the habitat and/or its location is identified locally, typically in a relevant policy or plan, as being of strategic significance for nature.
- 2.10 Habitats which are to be created, restored or enhanced during the development are calculated with additional consideration given for 'risk'. The risk components of this include the difficulty of creating or restoring the habitat and the risk associated with the length of time it takes for a habitat to establish. This means that if a high-quality habitat is removed from the site and re-established elsewhere on the site, it is likely to result in a biodiversity net loss due to the length of time it will take to establish the new habitat and the risk that the habitat will never fully establish.

Assumptions, Limitations and Exclusions

- 2.11 Due to the predictive nature of Biodiversity Net Gain estimates, it is always necessary to make certain assumptions and judgements about the habitats present within the site currently and the land-use types and habitats that will be present within and around the developed site. Such assumptions and judgements are detailed below.

- 2.12 As some trees could not be accessed a condition score of large 'good' has been assigned at baseline due to their age and structure. All trees within the site are going to be retained.
- 2.13 The calculations do not take into account areas outside the site footprint, which are assumed not to be affected by the development. If areas outside the footprint are to be affected, they should also be taken into account in the calculations.

Habitat Classifications

Table 1. Habitat Classifications and definitions

UK Habitat Classification	UK Habitat Classification workbook (Butcher et al., 2020b) definition.	Species List
Modified grassland	Vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye-grass (<i>Lolium spp.</i>) and white clover (<i>Trifolium repens</i>). Species poor – less than 9 species per m ² .	Creeping butter cup (<i>Ranunculus repens</i>), soft rush (<i>Juncus effusus</i>), Yorkshire fog (<i>Holcus lanatus</i>), creeping thistle (<i>Cirsium arvense</i>), common nettles (<i>Urtica dioica</i>), yellow nutsedge (<i>Cyperus esculentus</i>), perennial rye-grass (<i>Lolium perenne</i>).
Other neutral grassland	Neutral grassland that does not meet the priority habitat definitions. Perennial rye-grass (<i>Lolium perenne</i>) is likely to be present at <30% with between 9 and 15 further species (m ²) also present.	Common bent (<i>Agrostis capillaris</i>), yarrow (<i>Achillea millefolium</i>), common ragwort (<i>Jacobaea vulgaris</i>), Timothy (<i>Phleum pratense</i>), Yorkshire fog (<i>Holcus lanatus</i>), hairy sedge (<i>Carex hirta</i>), creeping thistles (<i>Cirsium arvense</i>), common nettles (<i>Urtica dioica</i>), meadow grass (<i>Poa annua</i>), cock's-foot (<i>Dactylus glomerata</i>), common rush (<i>Juncus effusus</i>), broadleaved dock (<i>Rumex obtusifolius</i>), curly dock (<i>Rumex crispus</i>), red fescue (<i>Festuca rubra</i>), creeping butter cup (<i>Ranunculus repens</i>), red sorrel (<i>Rumex acetosella</i>), ribwort plantain (<i>Plantago lanceolata</i>), creeping cinquefoil (<i>Potentilla reptans</i>), Brome spp (<i>Bromus</i>), doves foot

UK Habitat Classification	UK Habitat Classification workbook (Butcher et al., 2020b) definition.	Species List
		cranes bill, (<i>Geranium molle</i>), nodding thistle (<i>Carduus nutans</i>).
Bracken	Land with bracken <i>Pteridium aquilinum</i> at >95% canopy cover at the height of the growing season	Bracken (<i>Pteridium aquilinum</i>).
Bramble scrub	Dense scrub with dominant bramble (<i>Rubus fruticosus</i> agg.)	Bramble (<i>Rubus fruticosus</i> agg.)
Blackthorn Scrub	Dense scrub with dominant blackthorn (<i>Prunus spinosa</i> .)	Blackthorn (<i>Prunus spinosa</i> .)
Wet Woodland	Wet woodland occurs on poorly drained or seasonally wet soils usually with alder (<i>Alnus glutinosa</i>), birch (<i>Betula</i> spp.) and willows (<i>Salix</i> spp.).	White willow (<i>Salix alba</i>).
Sparsely Vegetated Land - Tall Forbs	Unvegetated, disturbed, or sparsely vegetated habitats, inhabited by stress tolerant vegetation.	Common nettles (<i>Urtica dioica</i>), mare's tail (<i>Hippuris vulgaris</i>).
Hedgerow - Line of trees	A line of trees at least 20 metres in length with open habitat on each side.	Poplar spp (<i>Populus</i> spp), Hawthorn (<i>Crataegus monogyna</i>), elder (<i>Sambucus nigra</i>).
Ditch	An artificial standing-water linear feature less than 5m wide that is at least 20 times longer than its width.	Creeping bent (<i>Agrostis stolonifera</i>), nettles (<i>Urtica dioica</i>), water mint (<i>Mentha aquatica</i>), Marsh thistle (<i>Cirsium palustre</i>), round fruited rush (<i>Juncus compressus</i>), wood dock (<i>Rumex sanguineus</i>), cleaver (<i>Galium aparine</i>), St Peters wort (<i>Hypericum crux-andreae</i>), red fescue (<i>Festuca rubra</i>), water forget-me-not (<i>Myosotis scorpioides</i>).

Strategic Significance

- 2.14 The Biodiversity Metric 4.0 User Guide (Natural England, 2023) states that “Assessors must provide evidence by referencing relevant documents. If published, the relevant strategy is the Local Nature Recovery Strategy (LNRS). If an LNRS has not been published, the relevant consenting body or planning authority may specify alternative plans, policies or strategies to use”.

2.15 The categories (4.0) are as follows:

- High – Where the location has been identified within a local plan, strategy or policy as being ecologically important for the specific habitat type or where that habitat has been identified as being locally ecologically important.
- Medium – Where there is no relevant plan, strategy or policy in place, professional judgement may be used to justify the use of the medium strategic significance category. This judgement should consider the importance of that habitat in providing a linkage between other strategic locations.
- Low – If the habitat is not included in local plans, strategy or policy, and there is no evidence to suggest that the habitat is of medium strategic significance.

2.16 It is understood that Essex does not currently have a published Local Nature Recovery Strategy (LNRS). TMA are also not aware of alternative plans, policies or strategies currently specified by the Local Planning Authority for the assessment of Strategic Importance for Biodiversity Net Gain assessment.

2.17 Other plans, policies and strategies considered for the assessment of Strategic Significance include the following: Local Plans and Neighbourhood Plans, Local Planning Authority Local Ecological Networks, Tree Strategies, Area of Outstanding Natural Beauty Management Plans, Biodiversity Action Plans, Species and protected sites conservation strategies, Woodland strategies, Green Infrastructure Strategies, River Basin Management Plans, Catchment Plans and Catchment Planning Systems, Shoreline management plans, Estuary Strategies.

2.18 All habitat types have been classed as 'Area/compensation not in local strategy/ no local strategy'.

Limitations

2.19 Biodiversity Net Gain estimates have various limitations as covered within this report. The following limitations are notable with respect to the accuracy of figures produced from the Biodiversity Metric calculator:

2.20 The Habitat Survey can only provide a snapshot of habitat classifications present at the time of the survey. Some habitats may be in a process of change, including natural succession of habitats or areas under sporadic management or clearance.

3 THE MITIGATION HIERARCHY

- 3.1 The NPPF paragraph 180a requires that the mitigation hierarchy has been implemented to avoid, mitigate or compensate for significant harm to biodiversity resulting from a development.
- 3.2 This principle is also integral to *Biodiversity Net Gain – Good Practice Principles for Development* (CIEEM, 2019).

Avoid

- 3.3 Impacts on key ecological features within the site have been avoided as follows:
- 3.4 The line of trees on the southern boundary is due to be retained.
- 3.5 No trees are to be removed during the development.

Minimise

- 3.6 The impact of the development has been minimised by keeping the landscape plans as ecologically valuable as possible. The project proposed has left areas of habitat not impacted by the site development for enhancement opportunities.

Remediate

- 3.7 The grassland lost due to the development will be offset by improving the remaining grassland on site to a higher distinctiveness habitat and/ or condition score. For example, poor condition 'modified grassland' will be enhanced to moderate condition 'other neutral grassland'.

Compensate

- 3.8 No habitats require compensation, however extra trees are to be planted across the site to increase the overall habitat value of the site.

4 VALUE OF CURRENT HABITATS

Existing Habitats

- 4.1 The habitats currently on site, the baseline habitats, as well as their condition, are shown in table 2 below.

Table 2. Value of existing on-site habitats

Broad Habitat	Habitat Type	Area (ha)	Condition	Biodiversity units
Grassland	Other Neutral Grassland	3.13	Moderate	25.04
Grassland	Modified Grassland	0.44	Poor	0.88
Grassland	Bracken	0.04	Condition Assessment N/A	0.08
Woodland	Wet Woodland	1.21	Poor	7.26
Heathland and Shrub	Blackthorn Scrub	0.03	Poor	0.12
Heathland and Shrub	Bramble Scrub	0.04	Condition Assessment N/A	0.16
Sparsely Vegetated Land	Tall Forbs	0.78	Poor	1.56
Urban	Rural Tree	0.1303	Moderate	1.04
Urban	Rural Tree	0.6116	Good	7.34
	TOTAL	5.67 (trees not included)		43.48

- 4.2 In the table above, trees are not included in the overall site area as they occupy a separate plane overlapping other habitat types.

Existing Hedges

- 4.3 The linear habitats currently on site, the baseline linear habitats as well as their condition are shown in table 3 below.

Table 3. Value of existing on-site hedges

Hedge type	Length (km)	Condition	Biodiversity units
Line of trees	0.12	Moderate	0.48
Line of trees	0.09	Moderate	0.36
TOTAL	0.21		0.84

Existing Water Courses

- 4.4 The water course habitats currently on site, the baseline water course habitats as well as their condition are shown in table 4 below.

Table 4. Value of existing on-site water courses

Water course type	Length (km)	Condition	Biodiversity units
Ditches	0.42	Poor	1.68
TOTAL	0.42		1.68

5 VALUE OF RETAINED/PROPOSED HABITATS

Retained/enhanced habitat areas

- 5.1 The following habitats are due to be retained and/or enhanced within the proposed development.

Table 5. Value of proposed retained or enhanced habitats

Broad Habitat	Habitat Type	Area (ha) to be retained/enhanced	Retained or enhanced	Enhancement	Biodiversity units increased by
Grassland	Other Neutral Grassland	1.91	Enhanced	Moderate to Good	20.95
Grassland	Modified Grassland	0.32	Enhanced	Poor Modified to Moderate Other Neutral Grassland	2.52
Woodland	Wet Woodland	1.17	Enhance	Poor to Moderate	10.31
Heathland and Shrub	Blackthorn Scrub	0.03	Enhance	Poor Blackthorn Scrub to Moderate Mixed Scrub	0.22
Urban	Rural Tree	0.1303	Retained	-	-
Urban	Rural Tree	0.6116	Retained	-	-
	TOTAL	3.46 (trees not included)			34.00

- 5.2 In the table above, trees are not included in the overall site area as they occupy a separate plane overlapping other habitat types.

Retained hedges

- 5.3 The following linear habitats are due to be retained within the proposed development.

Table 6. Value of proposed retained on-site hedges

Hedge type	Length (km)	Condition	Biodiversity units
Line of trees	0.12	Moderate	0.48
Line of trees	0.09	Moderate	0.36

Enhanced water courses

- 5.4 The following water course habitats are due to be enhanced within the proposed development. Marginal vegetation will be added, water levels will be maintained and a there will be a diverse range of floating plant species.

Table 7. Value of enhanced water course habitats

Water course type	Length (km)	Enhancement	Biodiversity units increased by
Ditches	0.36	Poor to moderate	2.28
TOTAL	0.36		2.28

Habitats lost

- 5.5 All habitats shown in table 8 below, are due to be removed to accommodate the development, and replaced with the habitats shown in table 10.

Table 8. Value of lost habitats

Broad Habitat	Habitat Type	Area lost (ha)	Habitat Units lost
Grassland	Other Neutral Grassland	1.19	9.52
Grassland	Modified Grassland	0.12	0.24
Grassland	Bracken	0.04	0.08
Woodland	Wet Woodland	0.04	0.24
Heathland and Shrub	Bramble Scrub	0.04	0.16
Sparsely Vegetated Land	Tall Forbs	0.78	1.56
	TOTAL	2.21	11.80

Water courses lost

- 5.6 A small area of ditch habitat is to be lost to accommodate the new pond.

Table 9. Value of lost water course habitats

Water course type	Length lost (km)	Habitat unit lost
Ditches	0.06	0.24
TOTAL	0.06	0.24

New proposed habitat areas

- 5.7 All habitats shown in table 10, below, are new habitats to be created to replace the lost habitats within table 8.

Table 10. Value of proposed new habitats

Broad Habitat	Habitat Type	Area (ha)	Condition	Biodiversity units
Grassland	Traditional orchards	0.07	Moderate	0.41
Grassland	Modified grassland	0.03	Poor	0.06
Woodland and forest	Wet woodland	0.1	Moderate	0.47
Woodland and forest	Other woodland; broadleaved	0.28	Moderate	1.31
Lakes	Pond (non-priority habitat)	0.05	Moderate	0.40
Heathland and shrub	Mixed scrub	0.1	Moderate	0.67
Individual trees	Rural tree	0.1629	Moderate	0.50
Individual trees	Rural tree	1.4291	Moderate	4.37
Urban	Vegetated garden	0.37	Condition Assessment N/A	0.71
Urban	Introduced shrub	0.12	Condition Assessment N/A	0.23
Urban	Artificial unvegetated, unsealed surface	0.46	N/A - Other	0.00
Urban	Developed land, sealed surface	0.62	N/A - Other	0.00
Urban	Other green roof	0.008	Condition Assessment N/A	0.02

Broad Habitat	Habitat Type	Area (ha)	Condition	Biodiversity units
Urban	Ground based green wall	0.03	Moderate	0.04
	TOTAL	2.21 (trees/ green walls not included)		9.19

- 5.8 In the table above, trees are not included in the overall site area as they occupy a separate plane overlapping other habitat types.

New hedges

- 5.9 All habitats shown in table 11, below, are new linear habitats to be created.

Table 11. Value of proposed new on-site hedges

Hedge type	Length (km)	Condition	Biodiversity units
Species rich native hedge	0.96	Moderate	6.43
TOTAL	0.96		6.43

6 BIODIVERSITY NET GAIN ESTIMATE - RESULTS

Headline Results

- 6.1 The Biodiversity Metric calculator spreadsheet (Microsoft excel format) prepared for the proposed development contains full details of the calculations and results. As such, the Biodiversity Metric calculator spreadsheet should always accompany this report and vice versa. The figures given below provide an overview of key results only.

Table 12. Headline results comparison

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)		<i>Habitat units</i>	8.09	
		<i>Hedgerow units</i>	6.43	
		<i>Watercourse units</i>	0.60	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)		<i>Habitat units</i>	18.60%	
		<i>Hedgerow units</i>	765.10%	
		<i>Watercourse units</i>	35.52%	
Trading rules satisfied?		Yes ✓		
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Habitat units</i>	10.00%	43.48	47.83	0.00
<i>Hedgerow units</i>	10.00%	0.84	0.92	0.00
<i>Watercourse units</i>	10.00%	1.68	1.85	0.00

Assessment

- 6.2 As shown above, the Biodiversity Metric calculator concludes that the development is due to result in a 18.60% gain in biodiversity units compared with the existing site prior to development activities. As can be seen in the tables in sections 4 and 0 above, this is largely due to the proposed enhancement of valuable habitat types such as other neutral grassland and wet woodland.

Hedgerow and water course units are counted separately. Hedgerow units have a net gain of 765.10%. This is due to the creation of new hedgerows across the site. Water courses has a net gain of 35.52% net gain. This is due to the enhancements of existing ditches.

Trading Rules

- 6.3 All trading rules are met within the metric.

Achieving Biodiversity Net Gain

Table 13. Criteria required to meet desired condition

Habitat/ Condition	Criteria
Traditional orchard – Moderate	<p>At least 95% of the trees are free from damage caused by humans or animals, for example browsing, bark stripping or rubbing on non-adjusted ties.</p> <p>Grassland is not overgrazed, poaching is not evident around the trees, with no more than 10% of trees poached under the canopy.</p> <p>Species richness of the grassland is equivalent to a medium, high, or very high distinctiveness grassland.</p> <p>There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of sub-optimal condition make up less than 10% of ground cover.</p>
Modified grassland – Poor	<p>The modified amenity grassland will not meet: There are 6-8 vascular plant species per m² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition.</p>
Other neutral grassland - Good	<p>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.</p> <p>Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.</p> <p>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%.</p> <p>Combined cover of species indicative of sub-optimal condition 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.</p> <p>If any invasive non-native plant species (as listed on Schedule 9 of WCA4) are present, this criterion is automatically failed.</p> <p>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).</p>

Wet woodland – moderate	<p>Must score at least 26 points within the BM 4.0 – technical annex 1 – condition assessment sheets.</p> <p>The point scores are based 1-3 depending how they score on the following categories:</p> <ul style="list-style-type: none"> • Age distribution of trees • Wild, domestic and feral herbivore damage • Invasive plant species • Number of native tree species • Cover of native tree and shrub species • Open space within woodland • Woodland regeneration • Tree health • Vegetation and ground flora • Woodland vertical structure • Veteran trees • Amount of deadwood • Woodland disturbance
Other woodland broadleaved – moderate	<p>Must score at least 26 points within the BM 4.0 – technical annex 1 – condition assessment sheets.</p> <p>The point scores are based 1-3 depending how they score on the following categories:</p> <ul style="list-style-type: none"> • Age distribution of trees • Wild, domestic and feral herbivore damage • Invasive plant species • Number of native tree species • Cover of native tree and shrub species • Open space within woodland • Woodland regeneration • Tree health • Vegetation and ground flora • Woodland vertical structure • Veteran trees • Amount of deadwood • Woodland disturbance
Pond – moderate	<p>Must score 5 out of 7 of the following:</p> <p>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.</p> <p>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.</p> <p>Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.</p> <p>The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.</p> <p>Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams², pumps or pipework.</p> <p>There is an absence of listed non-native plant and animal species³.</p>

	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.
Mixed scrub - Moderate	<p>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.</p> <p>At least 80% of scrub is native, and there are at least three native woody species, 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).</p> <p>There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of sub-optimal condition make up less than 5% of ground cover.</p> <p>The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.</p>
Rural tree – Moderate	<p>The tree is a native species (or at least 70% within the block are native species).</p> <p>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).</p> <p>More than 20% of the tree canopy area is oversailing vegetation beneath.</p>
Ground based green wall – poor	Invasive non-native plant species (listed on Schedule 9 of WCA) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of the total vegetated area.

7 REFERENCES

- Baker, J., Hoskin, R. & Butterworth, T. (2019). Biodiversity net gain. Good practice principles for development. CIRIA.
- British Standards Institution (2013). BS42020 – Biodiversity – Code of practice for planning and development.
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8 APPENDICES


Appendix 1 - Existing Habitat Plan

Appendix 2 – Proposed Site Layout (subject to change)











Appendix 3 - Photographs

Appendix 1 - Existing Habitat Plan



Key:
 Redline Boundary

Habitat Key:

-  Existing Tree
-  H2A - Hedgerow (Priority Habitat)
-  W1G6 - Line of Trees
-  H3D
-  G3C - Other Neutral Grassland
-  G1C - Bracken
-  S - Sparsely Vegetated Land
-  G4 - Modified Grassland
-  W1D - Wet Woodland
-  50 - Ditch




REV	Date	Description	Drawn by
Base drawing:			
Title:		Stage:	
Base Line Plan		Planning	
Client:			
Montare			
Project:			
The Downs, Stebbing			
Date:	Drawn by:	Authorised:	
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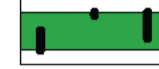







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Key:
 Redline Boundary

Habitat Key:

-  Existing Tree
-  H2A - Hedgerow (Priority Habitat)
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REV	Date	Description	Drawn by
Base drawing:			
Title:		Stage:	
Base Line Plan		Planning	
Client: Montare			
Project: The Downs, Stebbing			
Date:	Drawn by:	Authorised:	
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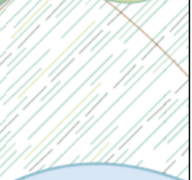
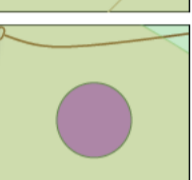

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Appendix 2 – Proposed Site Layout (subject to change)

NORTH FIELD (A&B) LEGEND:

-  Proposed Native Hedgerows to the edges of the housing areas will provide screening and a habitat resource for insects and small mammals to migrate through the site as well as a food source for birds.
-  Parkland and Street Trees will be native or near native species, planted as standards providing immediate visual impact
-  Scrub planting will be added to the North Field to improve habitat diversity, connecting with existing hedgerow to the North
-  Meadow - all meadow area will be enhanced and extended in the South field
-  Mown paths - based on existing desire lines paths will be mown into the meadow
-  Proposed orchard for community use to include local heritage apple and fruit tree varieties
-  Existing Willow to be pollarded, to ensure diversity in age and habitat
-  Existing Willow to be removed and replanted with Alder and other wet woodland species adding to the species and age diversity of this woodland
-  Excavated spoil from the new seasonal water course will be seeded with wild flower mix
-  Enhanced Marginal Planting - all stream and ditch edges will be enhanced using plug plants in appropriate native varieties
-  New seasonal water course will add to the wet woodland habitat, new pathways will allow people to observe wetland species
-  Planting Borders in the housing areas, there will be a mixture of shrubs and perennial flowering plants including open pollinator varieties to attract bees and other insects
-  Existing Enhanced Wet Woodland, the crack willow will be managed and inter-planted to create a more attractive and diverse woodland
-  Green gym equipment to form part of a trim trail
-  Bespoke signage, heritage interpretation boards and entrance features will help visitors navigate the site
-  Swale - these bespoke shallow dished areas created within the meadow will attenuate and filter rain water run-off from the houses and hard surfaces for up to 48 hours during flood events
-  Benches and resting places will be included along the routes



REV: DATE: BY: DETAILS:	
<p>AUSTIN DESIGN WORKS ARCHITECTURE AND LANDSCAPE THE OLD WAREHOUSE OLD MARKET NAILSWORTH GLOUCESTERSHIRE GL6 0DU Tel: 01453 836 393 E: info@austindw.co.uk</p>	
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Project Address:	
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Drawing Title:	
Landscape Masterplan for North Field (A&B)	
Drawing No: SD 200	Revision: EW
Drawn by: RA	Checked Date: 19/09/2023

NOTE:
 Do not scale this drawing.
 Assumed Boundary Line in accordance with the EQRP presentation of Oct '21 by Alistair Downie Studio
 Exact boundary line to be checked on site

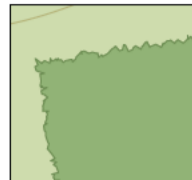
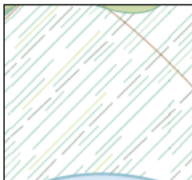
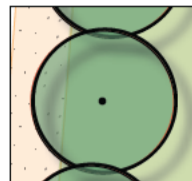
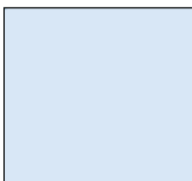
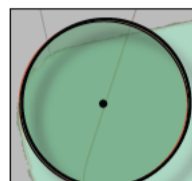
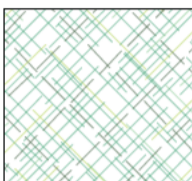
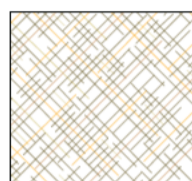
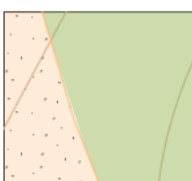
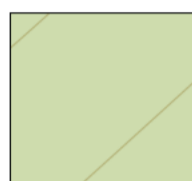

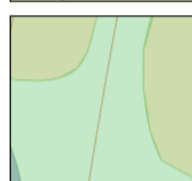

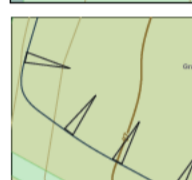
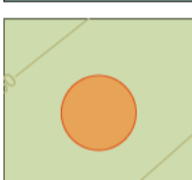
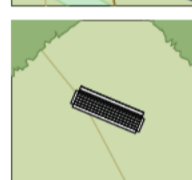
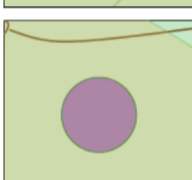
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 For Plot A Landscape Plan and Materiality see drawing no. SD 202
 For Plot B Landscape Plan and Materiality see drawing no. SD 203
 For Plot C Landscape Plan and Materiality see drawing no. SD 204
 For Plot D Landscape Plan and Materiality see drawing no. SD 205
 For Long Site Section AA Extract 1 see drawing no. SD 220
 For Long Site Section AA Extract 2 see drawing no. SD 221
 For Long Site Section BB see drawing no. SD 220
 For North Field Proposed Planting Plan and Schedules see drawing no. GA 600
 For South Field Proposed Planting Plan and Schedules see drawing no. GA 601
 For Typical Streetscape Planting Plan and Schedules see drawing no. GA 602

Composting area for the management of the site, this could be available as a member only scheme taking unwanted garden greens, turned into bagged green compost

Interpretation board describing the listed building and heritage orchard

There is a historically significant avenue of small leaved lime trees, an adjacent row of lime trees in proposed to ensure succession for the future

SOUTH FIELD (C&D) LEGEND:

	Proposed Native Hedgerows to the edges of the housing areas will provide screening and a habitat resource for insects and small mammals to migrate through the site as well as a food source for birds.		Enhanced Marginal Planting- all stream and ditch edges will be enhanced using plug plants in appropriate native varieties
	Avenue Trees to replace existing dead and dying poplar		Seasonal Dipping Pond- This creates a place to explore and observe nature as well as adding to the visual beauty in this area of the site
	Parkland and Street Trees will be native or near native species, planted as standards providing immediate visual impact		Existing Woodland Enhanced- There is an area within the Southern part of the site with an oak canopy and mainly thorn understorey- the thorn and bramble will be managed and new future trees planted to provide age diversity in this area
	Existing Scrub managed and enhanced the species diversity and age will be improved		Upgraded Public Footpath- the existing muddy path will be re-surfaced with a fine gravel, making this more accessible in wet weather
	Meadow- all meadow area will be enhanced and extended in the South field		Planting Borders in the housing areas, there will be a mixture of shrubs and perennial flowering plants including open pollinator varieties to attract bees and other insects
	Mown paths- based on existing desire lines paths will be mown into the meadow		Existing Enhanced Wet Woodland- this is already a special area, which will be managed to enhance age and species diversity
	Swale- these bespoke shallow ditched areas created within the meadow will attenuate and filter rain water run-off from the houses and hard surfaces for up to 48 hours during flood events		Green gym equipment to form part of a trim trail
	Benches and resting places will be included along the routes		Bespoke signage, heritage interpretation boards and entrance features will help visitors navigate the site



NOTE:
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 Assumed Boundary Line in accordance with the EQRP presentation of Oct '21 by Alistair Downie Studio
 Exact boundary line to be checked on site

For North Field Landscape Masterplan see drawing no. SD 200
 For Plot A Landscape Plan and Materiality see drawing no. SD 202
 For Plot B Landscape Plan and Materiality see drawing no. SD 203
 For Plot C Landscape Plan and Materiality see drawing no. SD 204
 For Plot D Landscape Plan and Materiality see drawing no. SD 205
 For Long Site Section AA Extract 1 see drawing no. SD 220
 For Long Site Section AA Extract 2 see drawing no. SD 221
 For Long Site Section BB see drawing no. SD 220
 For North Field Proposed Planting Plan and Schedules see drawing no. GA 600
 For South Field Proposed Planting Plan and Schedules see drawing no. GA 601
 For Typical Streetscape Planting Plan and Schedules see drawing no. GA 602

REV: DATE: BY: DETAILS:	
AUSTIN DESIGN WORKS	
THE OLD WAREHOUSE OLD MARKET NAILSWORTH GLOUCESTERSHIRE GL6 0DU Tel: 01453 836 393 E: info@austindw.co.uk	
ARCHITECTURE LANDSCAPE ARCHITECTURE INTERIORS	
Drawing Title: Landscape Masterplan for South Field (C&D)	Scale: 1:500 @ A1
Drawing No: SD 201	Revision: EW
Checked By: RA	Checked Date: 15/09/2023

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Appendix 3 - Photographs

Photo 1 – Site overview – other neutral grassland.



Photo 2 – Site overview – modified grassland.



Photo 3 – Site overview – other neutral grassland.



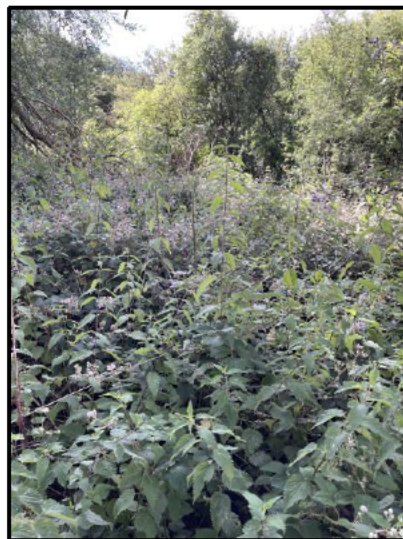
Photo 4 – Wet woodland



Photo 5 – Large tree with potential to support a range of species.



Photo 6 – Dense nettles.





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