

Land at Moat Road, Headcorn

## **Biodiversity Net Gain Assessment**

September 2023

Quality Management	
<b>Client:</b>	Catesby Strategic Land Limited
<b>Project:</b>	Land at Moat Road, Headcorn
<b>Report Title:</b>	Biodiversity Net Gain Assessment
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# 1 Introduction

## 1.1 Background and Proposals

1.1.1 Aspect Ecology is advising Catesby Strategic Land Limited with regard ecological matters for the proposed development of land at Moat Road, Headcorn, approximately centred at grid reference TQ 828 445 ('the site').

1.1.2 The proposals are for an outline application (with all matters reserved except access) for the development of up to 120no. dwellings (Use Class C3) including demolition of existing buildings, means of access into the site from Moat Road (not internal roads), associated highway works, provision of public open space, emergency / pedestrian access to Millbank and associated infrastructure including surface water drainage.

1.2 As part of the outline planning application a Biodiversity Net Gain (BNG) Assessment has been prepared to inform the proposals and demonstrate that proposals can deliver a measurable biodiversity net gain within the site.

1.3 This report should be read in conjunction with the scheme's Ecological Appraisal<sup>1</sup>.

## 1.4 Biodiversity Net Gain

### Environment Act

1.4.1 The Environment Act establishes a comprehensive legal framework for environmental improvement within the UK, forming one of the key measures to deliver the vision set out under the 25 Year Environment Plan.

1.4.2 The Environment Act is intended to establish the structure for long-term environmental governance and accountability and includes key measures to drive improvements for nature. In particular, it lays the foundation for a Nature Recovery Network, and introduces a mandatory requirement for biodiversity net gain in the planning system, to ensure that new developments enhance biodiversity and create new green spaces for local communities to enjoy. This will require developments to deliver a 10% improvement in biodiversity value, albeit this will not be a legal requirement until the legislation is finalised, currently anticipated to be autumn 2023.

1.4.3 A new version of the Biodiversity Metric (v4.0) was released in April 2023, which replaces the previous version (v3.1) and is the current version mandated by the Environment Bill.

### Local Policy

1.4.4 Maidstone Borough Council's Core Strategy Local Plan contains policies relating to the protection and enhancement of recognised biodiversity and conservation. Policy DM3 (Natural Environment) does not set a specific target for biodiversity net gain; however, it highlights the need for nature based solutions and the conservation of valuable habitats within the locality:

*"When significant harm cannot be avoided through consideration of alternative sites or adequate mitigation provided on-site within the immediate locality, compensatory*

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<sup>1</sup> Aspect Ecology (2022) 'Land North of Moat Road, Headcorn, Ecological Appraisal, November 2022' Report Ref. 6196 EcoAp vf

*measures will be achieved within the relevant Biodiversity Opportunity Area, or other location as agreed by the local planning authority.”*

- 1.4.5 Furthermore, Policy DM19, public accessible open space and recreation, part ii), highlights the quality standards that should be met for new developments, stating:

*“Promote Biodiversity on-site through design, choice of species and management practices.”*

- 1.4.6 Emerging policy in Maidstone and Kent is anticipated to follow the recommendations of a study from September 2020 setting out a justification for targeting 20% BNG within the county . Although this is not yet formal policy, the design of the proposals has taken this into account and sought to achieve this as a minimum BNG provision.

#### Good Practice Principles for Development

- 1.4.7 CIRIA, CIEEM and IEMA have developed a set of principles on good practice to achieve Biodiversity Net Gain<sup>2</sup>, accompanied by a practical guide<sup>3</sup>. These principles provide a framework that helps improve the UK’s biodiversity by contributing towards strategic priorities to conserve and enhance nature while progressing with sustainable development. They also provide a way for industry to show that projects follow good practice. Ten key principles are identified:

- 1) Apply the Mitigation Hierarchy. Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision-makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.
- 2) Avoid losing biodiversity that cannot be offset by gains elsewhere. Avoid impacts on irreplaceable biodiversity - these impacts cannot be offset to achieve No Net Loss or Net Gain.
- 3) Be inclusive and equitable. Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to Net Gain. Achieve Net Gain in partnership with stakeholders where possible, and share the benefits fairly among stakeholders.
- 4) Address risks. Mitigate difficulty, uncertainty and other risks to achieving Net Gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being fully realised.
- 5) Make a measurable Net Gain contribution. Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.
- 6) Achieve the best outcomes for biodiversity. Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly justified choices when:
  - Delivering compensation that is ecologically equivalent in type, amount and condition, and that accounts for the location and timing of biodiversity losses;

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<sup>2</sup> CIEEM, CIRIA, IEMA (2016) *Biodiversity Net Gain: Good practice principles for development*.

<sup>3</sup> CIEEM, CIRIA, IEMA (2019) *Biodiversity Net Gain: Good practice principles for development. A practical guide*.

- Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation;
  - Achieving Net Gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels;
  - Enhancing existing or creating new habitat;
  - Enhancing ecological connectivity by creating more, bigger, better and joined areas for biodiversity.
- 7) Be additional. Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway).
- 8) Create a Net Gain legacy. Ensure Net Gain generates long-term benefits by:
- Engaging stakeholders and jointly agreeing practical solutions that secure Net Gain in perpetuity;
  - Planning for adaptive management and securing dedicated funding for long-term management;
  - Designing Net Gain for biodiversity to be resilient to external factors, especially climate change;
  - Mitigating risks from other land uses;
  - Avoiding displacing harmful activities from one location to another;
  - Supporting local-level management of Net Gain activities.
- 9) Optimise sustainability. Prioritise Biodiversity Net Gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy.
- 10) Be transparent. Communicate all Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

## 2 Methodology

### 2.1 Ecological Survey

- 2.1.1 The site has been subject to numerous ecological surveys that have been undertaken to inform the original planning application, planning appeal, and revised planning application at the site.
- 2.1.2 A specific survey of the habitats present at the site, which included condition assessments of each habitat to inform the assessment of BNG was carried out in August 2022. The survey reviewed the accuracy of the previous baseline surveys undertaken and recorded any significant changes. The suitability for habitats to support protected species was also re-assessed.
- 2.1.3 No specific Modular River Physical (MoRPh) Survey has been undertaken on watercourses as none are present within 10m of the site.

### 2.2 Survey Constraints and Limitations

- 2.2.1 Not all of the species that occur in any given habitat are necessarily visible at any given time of the year, since different species are apparent during different seasons. However, the most recent habitat survey was undertaken during the optimal period, and has been further informed by the findings of previous surveys.
- 2.2.2 All parts of the site and its immediate environs were visited during the most recent surveys.

### 2.3 Biodiversity Net Gain Assessment

- 2.3.1 To quantify the level of biodiversity net gain that can be delivered under the proposed development, the change in biodiversity value resulting from the scheme has been calculated using the Biodiversity Metric version 4.0 calculation tool<sup>4</sup> and associated user guide<sup>5</sup>. This takes account of the size, distinctiveness and ecological condition of existing and proposed habitat areas to provide a proxy measure of the present and forecast biodiversity value of a site, and therefore determine the overall change in biodiversity value. These calculations are shown at Appendix 6196/1.
- 2.3.2 To establish the habitat baseline, broad habitat areas have been identified based on the survey work undertaken at the site, with habitat condition assigned based on the guidance<sup>6</sup> and professional judgement.
- 2.3.3 The post-development habitat creation and enhancement is based on the current Landscape Masterplan. Where assumptions have been made in terms of the detailed landscaping and management proposals, these are based on comparative developments and what is understood to be realistic and feasible under the proposed land uses and landscape space types.

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<sup>4</sup> Natural England and DEFRA, April 2023. '*Biodiversity Metric 4.0 Calculation Tool*', <https://publications.naturalengland.org.uk/file/5338007268491264>, sourced September 2023.

<sup>5</sup> Natural England, April 2022. '*Natural England Joint Publication JP039. Biodiversity Metric 4.0 - User Guide*', <https://publications.naturalengland.org.uk/file/6188841413902336>, sourced September 2023.

<sup>6</sup> Natural England, April 2022. '*Biodiversity Metric 4.0: Technical Annex 1 - Condition Assessment Sheets and Methodology*'. <https://publications.naturalengland.org.uk/file/4510441569779712>.

## 3 Habitats and Ecological Features

### 3.1 Overview

3.1.1 The site principally comprises a grazed, species-poor semi-improved grassland field. Other habitats present include smaller patches of longer-sward semi-improved grassland, hedgerows which are present within and bounding the site, a small area of woodland, a pond, scattered trees, buildings, scrub, tall ruderal vegetation and bare ground.

3.1.2 Habitats present are labelled on Plan 6196/ECO3.

3.1.3 The proposals have sought to retain important features wherever possible and to protect and enhance them by additional new planting. Habitat losses will be offset by the proposed new planting and other associated ecological enhancements, which will increase the value of the area for wildlife.

3.1.4 A total land area of 7.53ha exists within the project red line area, which has been taken as the basis for both existing (baseline) habitat calculations, and proposed land take. The red-line area is shown on plans 6196/BNGA1 and 6196/BNGA2.

3.1.5 For the purposes of this assessment, the following habitats are present within the site:

- Semi-improved Grassland;
- Hedgerows;
- Woodland;
- Ponds;
- Buildings and Bare Ground;
- Tall Ruderal Vegetation and Bramble Scrub.

3.1.6 These habitat types are shown on Plans 6196/ECO3 and 6196/BNGA1 and are described below.

### 3.2 Semi-improved Grassland

3.2.1 **Grassland: Modified Grassland, Poor Condition (6.22ha).** The site is dominated by a single large semi-improved grassland field (**G1**). Using the condition assessment criteria provided in the Biodiversity Metric 3.1 Technical Supplement<sup>7</sup>, this corresponds most closely with the category of 'Grassland – Modified grassland'. It has a short sward length, with frequent Perennial Rye-grass *Lolium perenne*, is subject to regular grazing/mowing, and is generally maintained in this condition up to the field boundaries. The low species diversity of this area of grassland means it does not meet the criteria required for 'Moderate' condition.

3.2.2 **Grassland: Other Neutral Grassland, Moderate Condition (0.24ha).** Grassland **G2** comprises an area of rank and tussocky semi-improved grassland which is not subject to grazing or mowing and is dominated by tall ruderals, adjacent to the eastern site boundary, north of the buildings. This most closely matches the category 'Grassland – Other neutral grassland' and corresponds to the criteria for 'Moderate' condition.

<sup>7</sup> Natural England (2022), 'Biodiversity Metric 4.0. Technical Annex 2 – Technical Information' at <https://publications.naturalengland.org.uk/file/6653727197626368>



- 3.2.3 **Grassland: Other Neutral Grassland, Poor Condition (0.18ha).** Grassland **G3** is an area of rank and tussocky semi-improved grassland in the south-eastern corner of the site, around the buildings. This most closely matches the category 'Grassland – Other neutral grassland' and corresponds to the criteria for 'Poor' condition.

### 3.3 Woodland

- 3.3.1 **Woodland and Forest: Lowland Mixed Deciduous Woodland, Moderate Condition (0.02ha).** A small area of young woodland/scrub (labelled as woodland **W1** on Plan 6196/ECO3) is present alongside the eastern site boundary, comprising a mixture of Hawthorn, Elder, Blackthorn and some young Elm *Ulmus* sp. trees. Using the Technical Supplement, this area is defined as 'Woodland and Forest – Lowland Mixed Deciduous Woodland', with 'High' distinctiveness and 'Moderate' condition. This area will be retained under the proposals.

- 3.3.2 A second area of woodland shown as **W2** on Plan 6196/ECO3 lies outside the site boundary.

### 3.4 Ponds

- 3.4.1 **Lakes: Ponds (Non-Priority Habitat), Moderate Condition (0.02ha).** The site contains a single pond **P1**. This is a pond at the edge of a field within a former farmyard area. The pond has little emergent vegetation, but patches of rushes are present, along with Bulrush *Typha latifolia* and abundant leaf debris. Algae, clumps of sedges *Carex* sp. and Water Plantain *Alisma plantago-aquatica* are present at the pond margins. This area corresponds to 'Moderate' condition.

- 3.4.2 A second pond shown as **P2** on Plan 6196/ECO3 lies outside the site boundary.

### 3.5 Buildings and Bare Ground

- 3.5.1 **Urban: Developed Land, Sealed Surface – Condition N/A (0.32ha).** The former farmyard area contains several buildings. The buildings are devoid of vegetation, save for a small number of colonising weeds growing on the floor within some of these buildings. Buildings are classified within the metric as 'urban: developed land, sealed surface' and have a condition assessment of 'N/A'. In addition, roads within the scheme boundary fall into this category and condition.

- 3.5.2 **Urban: Artificial Unvegetated, Unsealed Surface – Condition N/A (0.18ha).** Areas of bare ground are present around the buildings. These are classified within the metric as 'urban: artificial unvegetated, unsealed surface' and have a condition assessment of 'N/A'.

### 3.6 Tall Ruderal and Scrub

- 3.6.1 **Sparsely Vegetated Land: Ruderal/Ephemeral – Moderate Condition (0.24ha).** The site contains numerous patches of tall ruderal vegetation, amongst the buildings and adjacent to many hedgerows. Ruderal habitats meet two of the four criteria and are therefore assessed as of 'poor' condition.

- 3.6.2 **Heathland and Shrub: Mixed Scrub – Moderate Condition (0.05ha)** Areas of mixed scrub are present throughout the site. Species present include Elder, Hawthorn, Blackthorn and Bramble. These areas correspond to 'Moderate' condition.

3.6.3 **Heathland and Shrub: Bramble Scrub – Condition N/A** (0.003ha) Patches of Bramble scrub are present throughout the site. This habitat is classified within the metric as of ‘N/A’ condition.

## 3.7 Hedgerows

3.7.1 The site contains numerous hedgerows, both around its perimeter and within the main body of the site. These are assessed separately to area habitats within the metric.

3.7.2 **Species Rich Native Hedgerow, Good Condition (H1 - 0.099km)**. Relatively substantial, outgrown hedgerow with dense and bushy growth, growing up to 5-6m in height and appearing relatively unmanaged. Species comprise Blackthorn *Prunus spinosa*, Hawthorn *Crataegus monogyna*, Dog Rose *Rosa canina* and Field Maple *Acer campestre* along with some young Oak *Quercus* sp. trees of 8-10m in height. A healthy ground flora is present, including Dog’s Mercury *Mercurialis perennis*, Lesser Celandine *Ficaria verna*, Ivy *Hedera helix*, Cleavers *Galium aparine* and Hemlock Water-dropwort *Oenanthe crocata*. A road drain runs along the base of the hedgerow beside the road but this is a feature of the road drainage rather than a component of the hedgerow. The hedgerow is relatively continuous, though becoming gappy at the eastern end.

3.7.3 **Native Hedgerow With Trees, Good Condition (H2 - 0.026km)**. A small section of hedgerow growing to approximately 5m in height, including semi-mature to mature Hawthorn and Pear *Pyrus communis* trees, along with smaller Hawthorn and Blackthorn. Ground flora is consistent with the adjacent grassland, with Lords-and-Ladies also present.

3.7.4 **Native Hedgerow, Good Condition (H3 - 0.164km)**. A gappy hedgerow mostly dominated by Blackthorn, although with some sections dominated by Bramble, with Elder *Sambucus nigra* and occasional fruit trees also present. The width of the hedgerow varies to a maximum of approximately 5m. The southern part of the hedgerow (**H3a**) is relatively unmanaged, growing to a height of approximately 8m, while the northern section (**H3b**) is more heavily managed to a height of 2-3m, and is dense and bushy. Some Blackthorn and Bramble scrub is present encroaching from the hedgerow into the adjacent field.

3.7.5 **Native Hedgerow Associated With Bank or Ditch, Good Condition (H4 - 0.167km)**. A bushy, scrubby hedgerow growing to 4m in height and 4-5m wide, dominated by Blackthorn, but also containing Dog Rose *Rosa canina*, Goat Willow *Salix caprea*, Hawthorn and a semi-mature Oak tree. A dry ditch is present at the base of the hedgerow, while a small amount of recolonizing Blackthorn is present encroaching from the hedgerow into the field, though this is not well developed.

3.7.6 **Species Rich Native Hedgerow, Good Condition (H5 - 0.164km)**. Dense hedgerow fairly similar in character to hedgerow H5, growing to approximately 6m high and 5m wide and dominated by Blackthorn, but also containing Hawthorn, Elder, Dog Rose, areas of dense Bramble, and small Field Maple and Willow *Salix* sp. trees, which are most frequent at the southern end. The hedgerow vegetation is Ivy covered in places, while the ground layer comprises a mixture of bare ground and ruderal species including Common Nettle and Lords-and-Ladies.

3.7.7 **Native Hedgerow With Trees, Good Condition (H6 - 0.081km)**. Comprises a double boundary feature with two lines of vegetation approximately 3m apart, containing a number of semi-mature to mature trees, including Oak, Field Maple and Ash *Fraxinus excelsior*, with some coppice stalls present. Beneath the trees is scrubby growth including Elder, while ground the flora includes Bluebell, Celandine *Saxifraga* sp., Dog’s Mercury,

Lords-and-Ladies, Common Nettle and Ground Ivy *Glechoma hederacea*. This hedgerow is situated on a south-facing bank.

**3.7.8 Native Hedgerow With Trees, Moderate Condition (H7 - 0.080km).** A gappy, defunct hedgerow growing to 5-6m in height and taking the form of individual trees rather than dense, continuous growth. The hedgerow is mostly Hawthorn dominated, but also includes Elder and a semi-mature Ash (tree **T4**) at the far eastern end, within an associated thicket of scrub comprising Hawthorn and Bramble with Elder and Ash saplings. The hedgerow ground flora includes grasses and ruderal vegetation including Common Nettle and Dock *Rumex* sp.

**3.7.9 Native Hedgerow Associated With Bank or Ditch, Moderate Condition (H8 - 0.130km).** A defunct hedge, with scrubby growth of 6-10m in height containing a few small gaps less than 5m long. Species include Field Maple, Hawthorn and Blackthorn, with standard trees including Hawthorn and a large Oak (tree **T5**), present at the southern end. A small amount of Blackthorn was recorded encroaching into the onsite field. The base of the hedgerow is ruderal dominated, including Common Nettle and Lords-and-Ladies. A dry ditch is present running alongside this hedgerow.

### 3.8 Ditches

**3.8.1** Ditches are present associated with hedgerows only and are therefore have not been assessed as separate features.

### 3.9 Strategic Significance

**3.9.1** An element of strategic significance is built into the metric. This gives an enhanced value to habitats that are located in preferred locations for biodiversity and other environmental objectives. The User Guide explains that:

*‘Such priorities are drawn from relevant published local plans and objectives to identify local priorities for targeting biodiversity and nature improvement, such as Nature Recovery Areas, local biodiversity plans, National Character Area objectives and green infrastructure strategies’.*

**3.9.2** In this instance, the scheme is not located in any particular area of strategic significance as defined under the Technical Supplement, such as Biodiversity Opportunity Areas, or other strategic biodiversity areas such as those that might be defined under Local Plan Policy or regional Biodiversity Actions Plans. The ‘strategic significance’ of all habitats included within the calculation is therefore given as ‘Area/Compensation not in Local Strategy/no local strategy’.

## 4 Post-Development Habitats

### 4.1 Assumptions

4.1.1 Post-development habitats are shown on Plan 6196/BNGA2.

4.1.2 When inputting the post-development habitat areas and condition to the Biodiversity metric, the following assumptions have been made:

#### Area Habitats

4.1.3 Overall the development will result in a calculated area of 2.55ha of 'Urban: Developed land – sealed surfaces' (buildings, roads and paths) and 1.19ha of 'Vegetated Gardens'. In addition, an area of 0.04ha of play park, taken to correspond to 'Urban: Artificial Unvegetated – Sealed Surface', would be provided. Condition criteria of these habitat types are pre-assigned.

4.1.4 An area of 0.17ha of new SUDs features will be created, separated into three independent features in the south of the site. These are taken to correspond to 'Urban: Sustainable Drainage System' targeting 'Moderate' Condition, which condition is likely to be exceeded on the basis that they will be seeded with a species-rich grass-seed mix and will be populated by a good range of native species.

4.1.5 It is assumed that a proportion of the existing 'Grassland – Modified grassland' (0.77ha) will be retained. This will be enhanced to wildflower grassland corresponding to 'Grassland – Other Neutral Grassland', in 'Moderate' condition. The remaining Public Open Space on site (total area 2.18ha), is taken to be split between (40%; 0.87ha) species-rich grassland which would target the criteria for 'Grassland - Other Neutral Grassland', in 'Moderate' condition, (40%; 0.87ha) 'Grassland – Other Neutral Grassland', 'Poor' condition - this assumes that all Public Open Space areas will be placed in favourable management, and where necessary over-seeded with a species-rich native grass-seed mix to achieve the required characteristics; and (20%; 0.44ha) mixed scrub boundary planting 'Heathland and shrub; mixed scrub', 'Good' Condition.

4.1.6 Amenity grassland areas (0.54ha) will be managed with a cutting regime of reduced frequency than typically used in these areas, for the benefit of wildlife. Taking a pessimistic approach this habitat has been taken to conform to the category 'Grassland – Modified Grassland', in 'Poor' Condition, but it is likely that this condition will be exceeded.

4.1.7 A total of 150 trees are proposed within the current layout, which contribute a proportion of Biodiversity Units under the 'Urban Tree' habitat category. To determine tree size, these have been evenly split between 'Small' and 'Medium' size class. For an Urban tree to be classed as 'Medium', a diameter at breast height should be greater than 30cm at the target age (ie. after 27 years which is the time to target condition). Therefore, a conservative approach has been assumed, where those planted as standard trees under the landscape plans are designated in the metric as 'small' and those labelled as having a noticeably larger canopy have been designated as 'Medium'. However, it is possible that all (or many more) trees may reach the 'Medium' size class within the designated 27 year period, depending on the conditions. Taking a conservative approach, all trees have been taken to be able to achieve 'Moderate' Condition although this may be exceeded. Together, 'Small' and 'Moderate' tree planting has provided a contribution of 9.34 biodiversity units, which are counted in addition to those gained from other habitat areas within the metric.

- 4.1.8 P1 will be retained and enhanced under the proposals. Pond P1 will be enhanced to a target of 'Good' condition.

#### Hedgerows

- 4.1.9 The site proposals allow for the retention of the site's boundary hedgerows, with the exception of sections of hedgerows H1 and H7 to allow space for a site entrance and internal road. For the purpose of the calculation loss of hedgerow has been taken as 0.01km of each hedgerow concerned. Proposals allow for a calculated 0.137km of new native hedge, which will be planted with a range of native species so as to conform to the category 'Species-rich native hedgerow' and 0.231km of ornamental hedge planting which will conform to the category 'Non-native and ornamental hedgerow'. New native hedgerows will target 'Good' condition, whilst ornamental non-native hedgerows are limited by the metric to 'Poor' condition.
- 4.1.10 Retained hedgerows currently in 'Moderate' condition will be enhanced to 'Good' condition.

## 5 Biodiversity Net Gain Assessment Results

### 5.1 Metric calculation

- 5.1.1 The data from the baseline habitat survey work and the proposed habitat enhancement and creation works have been coded into the metric.
- 5.1.2 The calculation indicates that the development will result in 90.18% net gain in area habitats (+15.20 habitat units) and 20.00% net gain in hedgerows (+1.82 hedgerow units). The results are tabulated in Table 1 below.

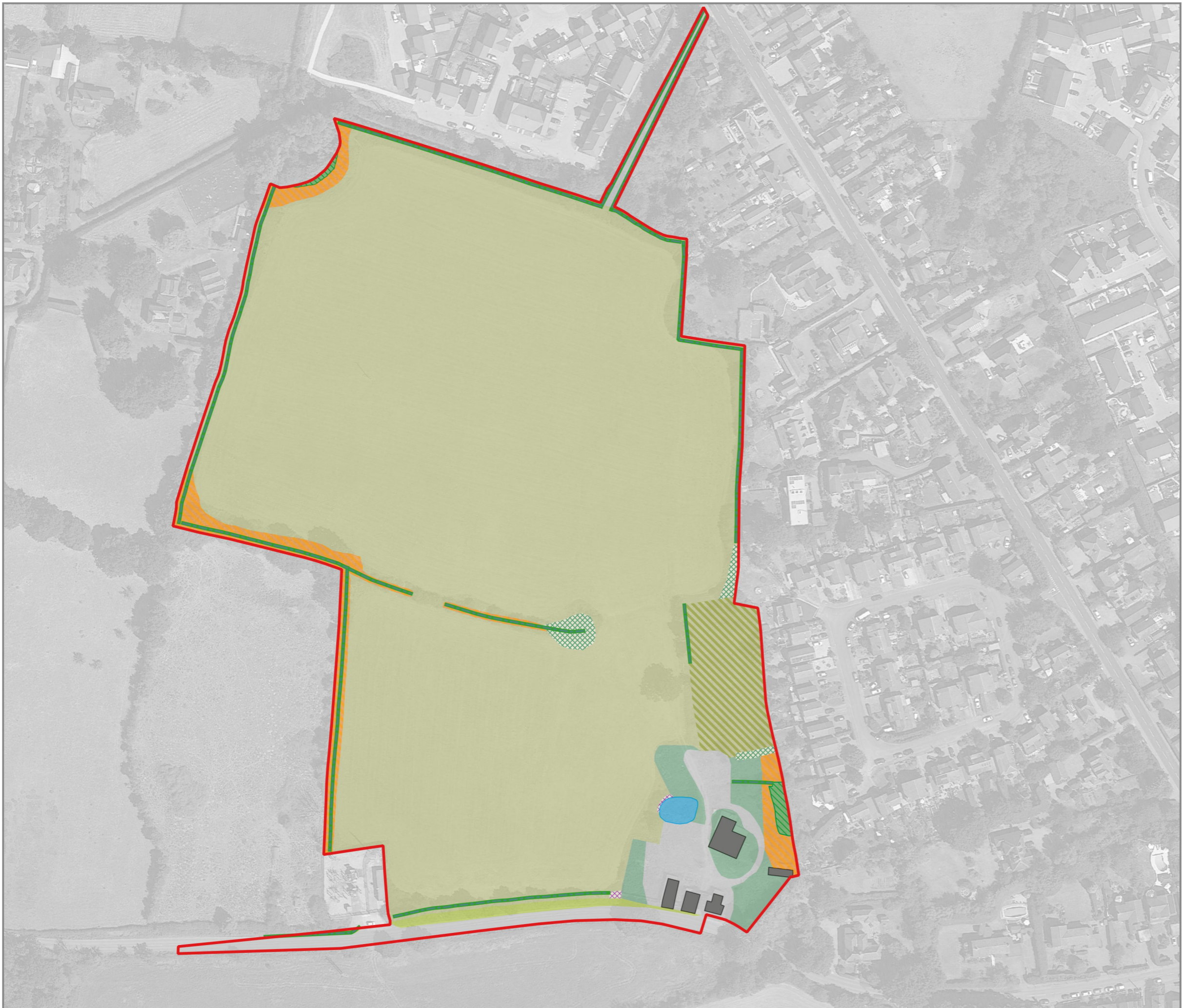
*Table 1 - Biodiversity Net Gain Assessment Summary*

	<b>Change in Units</b>	<b>% BNG</b>
Habitats	+15.20	90.18%
Hedgerows	+1.82	20.00%
Watercourses	N/A	N/A

- 5.1.3 The metric calculation sheets are reproduced at Appendix 6196/1.

## **Plan 6196/BNGA1:**

Existing Habitats and Ecological Features



- Key:
- Site Boundary
  - Bare Ground
  - Bramble Scrub
  - Building
  - Mixed Scrub
  - Roadside Verge
  - Semi-Improved Grassland
  - Tall Ruderal
  - Hardstanding
  - Ponds
  - Semi-Improved Grassland Tall Ruderals
  - Short-grazed Semi-improved grassland
  - Woodland
  - Hedgerow



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Land North of Moat Road,  
 Headcorn  
 Existing Habitats and Ecological Features

PROJECT	6196/BNG1
TITLE	Existing Habitats and Ecological Features
DRAWING NO.	6196/BNG1
REV	C/JP
DATE	September 2023



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## **Plan 6196/BNGA2:**

Proposed Habitats and Ecological Features

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- Key:
- Site Boundary
  - Retained Grassland
  - Grassland
  - Amenity Grassland
  - Vegetated Garden
  - Road Verge
  - Retained Woodland
  - SuDS
  - Retained Pond
  - LEAP
  - Path
  - Building
  - Hardstanding
  - Retained Native hedgerow
  - Proposed Native hedgerow
  - Proposed Non-native and ornamental hedgerow

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Land North of Moat Road, Headcorn	PROJECT
Proposed Habitats and Ecological Features	TITLE
6196/BNG2	DRAWING NO.
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September 2023	DATE



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## **Plan 6196/ECO3:**

Habitats and Ecological Features

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- Key:**
- Site Boundary
  - Bare Ground
  - Bramble Scrub
  - Building
  - Hardstanding
  - Mixed Scrub
  - Ponds
  - Roadside Verge
  - Semi-Improved Grassland
  - Semi-Improved Grassland Tall Ruderals
  - Short-grazed Semi-improved grassland
  - Tall Ruderal
  - Woodland
  - Hedgerow
  - Tree
  - Tree with low bat roosting potential
  - Tree with moderate bat roosting potential
  - Tree with moderate-high bat roosting potential
  - x Scattered scrub
  - ★ Potential badger sett

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Land North of Moat Road,  
 Headcorn  
 Habitats and Ecological Features

6196/ECO3



B/BG  
 November 2022

PROJECT  
 TITLE  
 DRAWING NO.  
 REV  
 DATE

P:\Project\Aspect Ecology Projects\ECO 6150\1006196\Graphics\GIS\6196 ECO3 Rev6.apx

## **Appendix 6196/1:**

Biodiversity Metric 4.0 Calculation

Land at Moat road, Headcorn
<b>Headline Results</b>
Scroll down for final results

Return to results menu

On-site baseline	Habitat units	16.85	
	Hedgerow units	9.11	
	Watercourse units	0.00	
On-site post-intervention <small>(Including habitat retention, creation &amp; enhancement)</small>	Habitat units	32.05	
	Hedgerow units	10.93	
	Watercourse units	0.00	
On-site net change <small>(units &amp; percentage)</small>	Habitat units	15.20	90.18%
	Hedgerow units	1.82	20.00%
	Watercourse units	0.00	0.00%

Off-site baseline	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention <small>(Including habitat retention, creation &amp; enhancement)</small>	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change <small>(units &amp; percentage)</small>	Habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%

Combined net unit change <small>(Including all on-site &amp; off-site habitat retention, creation &amp; enhancement)</small>	Habitat units	15.20	
	Hedgerow units	1.82	
	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 <small>(Including all on-site &amp; off-site habitat retention, creation &amp; enhancement)</small>	Habitat units	15.20	
	Hedgerow units	1.82	
	Watercourse units	0.00	
Total net % change <small>(Including all on-site &amp; off-site habitat retention, creation &amp; enhancement)</small>	Habitat units	90.18%	
	Hedgerow units	20.00%	
	Watercourse units	0.00%	
Trading rules satisfied?	Yes ✓		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	20.00%	16.85	20.22	0.00
Hedgerow units	20.00%	9.11	10.93	0.00
Watercourse units	20.00%	0.00	0.00	0.00

Unit requirement met or surpassed ✓  
 Unit requirement met or surpassed ✓  
 Unit requirement met or surpassed ✓

Project Name: Land at Moat road, Headcorn Map Reference: 6196/BNGA1  
 A-1 On-Site Habitat Baseline

Area habitat summary	
Total Net Unit Change	15.20
Total Net % Change	90.18%
Trading Rules Satisfied	Yes ✓

Condense / Show Columns Condense / Show Rows  
 Main Menu Instructions

Ref	Existing area habitats		Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline
	Broad Habitat	Habitat Type					
1							
2	Grassland	Modified grassland	Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	12.44
3							
4	Grassland	Other neutral grassland	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (2)	1.92
5	Grassland	Other neutral grassland	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (2)	0.72
6							
7	Woodland and forest	Lowland mixed deciduous woodland	High	Moderate	Area/compensation not in local strategy/ no local strategy	Same habitat required =	0.24
8							
9	Lakes	Ponds (non-priority habitat)	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (2)	0.16
10							
11	Urban	Developed land: sealed surface	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
12	Urban	Artificial unvegetated, unsealed surface	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
13							
14	Sparsely vegetated land	Ruderal/Ephemeral	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	0.96
15	Heathland and shrub	Mixed scrub	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (2)	0.40
16	Heathland and shrub	Bramble scrub	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (2)	0.01
17							
18							
19							
20							
21							
Total habitat area			7.47				16.85
Site Area (Excluding area of individual trees and Green walls)			7.47				

Retention category biodiversity value						Bespoke compensation agreed for unacceptable losses	Comments		
Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost		User comments	Consenting body comments	GIS reference number
	0.77	0.00	1.54	5.45	10.90				
		0.00	0.00	0.24	1.92				
		0.00	0.00	0.18	0.72				
0.02		0.24	0.00	0.00	0.00				
	0.02	0.00	0.16	0.00	0.00				
		0.00	0.00	0.32	0.00				
		0.00	0.00	0.18	0.00				
		0.00	0.00	0.24	0.96				
		0.00	0.00	0.05	0.40				
		0.00	0.00	0.00	0.01				
0.02	0.79	0.24	1.70	6.66	14.91				

Total area lost (excluding area of individual trees and Green walls) 6.66

M² to hectares conversion tool: Select a unit Hectares M²

Project Name: Land at Moat road, Headcorn Map Reference: 6196/BNGA2  
**A-2 On-Site Habitat Creation**

Condense / Show Columns

Condense / Show Rows

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Instructions

Area habitat summary	
Total Net Unit Change	15.20
Total Net % Change	90.18%
Trading Rules Satisfied	Yes ✓
Area Check (excluding individual trees and green walls)	Area Acceptable ✓

Post development/ post intervention habitats												
Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Temporal multiplier	Difficulty		Habitat units delivered	Comments		GIS reference number
			Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation		User comments	Consenting body comments	
Grassland	Other neutral grassland	0.872	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	5.84			
Grassland	Other neutral grassland	0.872	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	2	Low	3.25			
Grassland	Modified grassland	0.54	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	4	Low	1.87			
Heathland and shrub	Mixed scrub	0.436	Medium	Good	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	10	Low	3.66			
Urban	Developed land; sealed surface	2.55	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Medium	0.00			
Urban	Vegetated garden	1.19	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	2.30			
Urban	Artificial unvegetated, unsealed surface	0.04	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Low	0.00			
Urban	Sustainable drainage system	0.17	Low	Good	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Medium	0.57			
Individual trees	Urban tree	3.053628059	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	27	Low	9.34			
<b>Total habitat area</b>		<b>9.72</b>							<b>26.83</b>			

Site Area (Excluding area of Individual trees and Green walls) 6.67

M<sup>2</sup> to hectares conversion tool:  Select a unit  Hectares  M<sup>2</sup>





Project Name: Land at Moat road, Headcorn Map Reference: 6196/BNGA1  
 B-1 On-Site Hedge Baseline

Hedgerow summary	
Total Net Unit Change	1.82
Total Net % Change	20.00%
Trading Rules Satisfied	Yes ✓

Condense / Show Columns    Condense / Show Rows  
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Baseline ref	Existing hedgerow habitats			Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline Total hedgerow units
	Hedge number	Hedgerow type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier		
1												
2	H1	Species-rich native hedgerow	0.099	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	1.19
3	H2	Native hedgerow with trees	0.026	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.31
4	H3	Native hedgerow	0.164	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.98
5	H4	Native hedgerow - associated with bank or ditch	0.167	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	2.00
6	H5	Species-rich native hedgerow	0.164	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	1.97
7	H6	Native hedgerow with trees	0.081	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.97
8	H7	Native hedgerow with trees	0.08	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.64
9	H8	Native hedgerow - associated with bank or ditch	0.13	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	1.04
10												
11												
12												
13												
14												
			0.91									9.11

Retention category biodiversity value						Comments		GIS reference number
Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost	User comments	Consenting body comments	
		1.07	0.00	0.01	0.12			
0.089		0.31	0.00	0.00	0.00			
0.164		0.98	0.00	0.00	0.00			
0.167		2.00	0.00	0.00	0.00			
0.164		1.97	0.00	0.00	0.00			
0.081		0.97	0.00	0.00	0.00			
	0.07	0.00	0.56	0.01	0.08			
	0.13	0.00	1.04	0.00	0.00			
0.69	0.20	7.31	1.80	0.02	0.20			

Project Name: Land at Moat road, Headcorn Map Reference: 6196/BNGA2

**B-2 On-Site Hedge Creation**

Hedgerow summary	
Total Net Unit Change	1.82
Total Net % Change	20.00%
Trading Rules Satisfied	Yes ✓

Condense / Show Columns

Condense / Show Rows

Main Menu

Instructions

Baseline ref	New hedge number	Proposed habitats		Distinctiveness	Condition	Strategic significance	Temporal multiplier			Difficulty risk multipliers	Hedge units delivered	Comments		GIS reference number
		Habitat type	Length (km)				Distinctiveness	Condition	Strategic significance			Standard or adjusted time to target condition	Final time to target condition (years)	
1														
2		Species-rich native hedgerow	0.137	Medium	Good	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	12	Low	1.07				
3		Non-native and ornamental hedgerow	0.231	V.Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.22				
4														
5														
6														
7														
8														
			0.37								1.30			



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