



Biodiversity Net Gain Design Stage Report

**Land south of Bull Lane
Bethersden
Kent
TN26 3LB**

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Sussex Office
Rocks Yard, Victoria Road
Herstmonceux, East Sussex.
BN27 4TQ.

PJC Consultancy Ltd
www.pjcconsultancy.com
contact@pjcconsultancy.com
01233 225365 - 01323 832120

Kent Office
The Watermill, The Mill
Business Park, Maidstone
Road, Ashford, Kent, TN26 1AE

This report has been prepared by
PJC Consultancy Ltd
on behalf of
Esquire Developments

Document Author

Liam Mattingly BSc(Hons)

Liam is an Ecologist with four years' experience within the ecological consultancy industry. He gained a BSc (Hons) in Zoology at Southampton University in 2018 and is a Natural England class one licence holder for great crested newts.

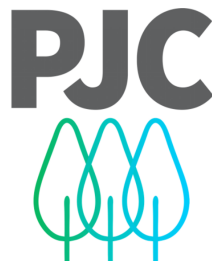
Checked By

Thomas Knight BSc(Hons) MSc MCIEEM

Tom is Director of Ecology with over ten years' experience working in the ecological consultancy industry. He gained a BSc(Hons) in Wildlife Conservation at the University of Kent in 2010 and a MSc in Conservation and Biodiversity at the University of Exeter in 2011. Tom is also a full professional member of the Chartered Institute of Ecology and Environmental Management (CIEEM). In addition, Tom is a Natural England class one licence holder for both bats and great crested newts.

Authorised By

Thomas Knight BSc(Hons) MSc MCIEEM





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1 INTRODUCTION

1.1 Instruction

- 1.1.1 PJC Consultancy Ltd was commissioned by Esquire Developments to provide a Biodiversity Net Gain (BNG) Design Stage report in relation to the proposed development on a parcel of land at south of Bull Lane, Bethersden, Kent, TN26 1LB (hereafter referred to as the 'Site').

1.2 Site Description and Baseline Conditions

- 1.2.1 The Site, approximately 3.5ha in size, is located south of Bull Lane, on the south-western outskirts of Bethersden village, approximately 9km south-west of Ashford town centre within the county of Kent (centred on OS grid reference: TQ 92260 39790). The Site is situated within a semi-rural landscape with agricultural fields to the west and south of the Site, Ashford Road (A28) to the east and Bull Lane to the north. The wider landscape comprises a mosaic of agricultural fields and small woodland parcels connected by a network of treelines that are intercepted by minimal road infrastructure as well as residential properties and community facilities to the north-east of the Site. The Site is split into two areas including 'Area A' to the north and 'Area B' to the south. Area A includes the entirety of the development footprint whereas Area B was identified to be utilised for habitat enhancements for biodiversity net gain. The location of the Site within its environs is presented in Appendix I.

1.3 Proposals

- 1.3.1 Development proposals are anticipated to include the construction of 40 residential dwellings with associated access, parking, gardens and landscaping.

1.4 Document Objectives

- 1.4.1 The aim of this BNG Design Stage report is to:
- Calculate the ecological baseline data of the Site by classifying the type, distinctiveness, condition, connectivity and strategic significance of habitats present prior to and post-development;
 - Ensure that the baseline habitat conditions are classified in a robust and consistent manner, and that classification is based on the best data available data at the time of assessment;
 - Calculate the habitat, hedgerow and watercourse units of the Site pre- and post-development, based on current development proposals;
 - Propose a BNG design with the aim of maximising BNG through habitat creation, enhancement and succession; and
 - Aim to achieve BNG on-Site wherever possible, with off-Site measures being considered as an alternative option if required.

1.5 Legislation and Planning Policy

- 1.5.1 This BNG Design Stage report has been compiled in accordance with relevant planning policy and best practice guidelines. Their context and applicability is explained as appropriate in the relevant sections of the report and additional details are presented in Appendix II.
- 1.5.2 The key articles of relevance are:
- Biodiversity Net Gain: Good Practice Principles for Development (CIEEM, CIRIA and IEMA, 2016);
 - Biodiversity net gain. Good practice principles for development. A practical guide (Baker, J., Hoskin, R., Butterworth, T., 2019);
 - The Statutory Biodiversity Metric User Guide (Natural England, 2024);



- National Planning Policy Framework (NPPF) 2023 (Ministry of Housing, Communities and Local Government, 2023);
- The Environment Act 2021;
- The Natural Environment and Rural Communities (NERC) Act 2006; and
- Ashford Local Plan 2023 (Ashford Borough Council, 2019).



2 METHODOLOGY

2.1 Habitat Conditions Assessment

- 2.1.1 An extended phase 1 habitat survey and updated UKHab survey and associated habitats condition assessment was undertaken on the Site on the 21st February 2024 and 24th April 2024 respectively by Liam Mattingly BSc(Hons) (Natural England class one great crested newt (GCN) *Triturus cristatus* licence holder) following the standard 'Phase 1 Habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC, 2010) and extended to include consideration of protected species in accordance with good practice guidance for preliminary ecological appraisal (PEA) (CIEEM, 2017), standard UKHab Classification System (UKHab Ltd., 2023) and the Statutory Biodiversity Metric – Technical Annex 1: Condition Assessment Sheets and Methodology (DEFRA, 2023).

2.2 Biodiversity Unit Calculation: Pre-Development (Baseline)

- 2.2.1 The total number of 'area units', 'hedgerow units' generated by the Site pre-development (the ecological baseline), was calculated for all area-based habitats (habitat units), hedgerow habitats (hedgerow units) within the Site. This accounts for the area/length, distinctiveness, condition, connectivity and strategic significance of each parcel recorded. The ecological baseline was calculated using the DEFRA Statutory Biodiversity Metric.
- 2.2.2 The DEFRA Statutory Biodiversity Metric uses habitat areas (in hectares (ha)) as its core measurement, except for linear habitats where habitat length is used (in kilometres (km)). For individual trees, the DEFRA statutory biodiversity metric tool contains a tree helper which automatically generates an area value based on the trees diameter at breast height.
- 2.2.3 To assess the distinctiveness of a habitat the DEFRA statutory biodiversity metric tool scores habitats of different types, such as woodland or grassland, according to their relative biodiversity value. Habitats that are scarce or declining typically score highly relative to habitats that are more common and widespread. The DEFRA Statutory Biodiversity Metric also takes account of the condition of a habitat parcel.
- 2.2.4 The area/length and distinctiveness and condition scores for each habitat was based on habitat data collected as part of the initial extended phase 1 habitat survey and updated habitats conditions assessment undertaken by PJC Consultancy in February and April 2024, respectively. The initial extended phase 1 habitat survey was undertaken on foot and involved identifying the extent and type of each habitat and recording each habitat on an appropriately scaled map. Using the DEFRA Statutory Biodiversity Metric, the phase 1 habitat types recorded were then automatically translated to the relevant 'UK Habitat Classification System' habitat type.
- 2.2.5 In accordance with recognised good practice principles, the DEFRA Statutory Biodiversity Metric excludes protected and irreplaceable habitats (i.e. ancient woodland, ancient and veteran trees, blanket bog, sand dunes, salt marsh and lowland fen). It is important to note that in the event protected and irreplaceable habitats are to be directly adversely impacted as a result of any proposed development, then biodiversity net gain or no net loss in biodiversity cannot be achieved.
- 2.2.6 The DEFRA statutory biodiversity metric tool also accounts for various multipliers and operates by applying a score or multiplier to each of these separate variables (distinctiveness, condition, ecological connectivity and strategic significance). It then multiplies the area/length of each habitat using each of these scores/multipliers to produce a number that represents the biodiversity unit value of each habitat unit and hedgerow unit. The ecological baseline of the Site area is calculated by totalling the habitat units and hedgerow units within the Site and off-Site area.
- Habitat Type and Distinctiveness*
- 2.2.7 Habitat distinctiveness is defined as a collective measure of biodiversity, including parameters such as species richness, diversity, rarity, and the degree to which a habitat supports species rarely found in other habitats.



2.2.8 The distinctiveness of each habitat is preassigned in the DEFRA statutory biodiversity metric tool. The distinctiveness bands are based upon the UK Habitat Classification System. A combination of simple rules and expert judgement have been used to assign each habitat type to the appropriate distinctiveness band. The DEFRA distinctiveness bands and corresponding scores are as follows:

- Very high (8);
- High (6);
- Medium (4);
- Low (2);
- Very Low (hedgerow module) (1); and
- Very Low (area) (0).

Habitat Condition

2.2.9 Habitat condition is defined as the quality of a particular habitat which measures the biological 'working-order' of a habitat type judged against the perceived ecological optimum state for that particular habitat, as it considers how many of the key physical characteristics and typical species of a particular habitat type are present in a habitat.

2.2.10 Habitat condition assessment bands were assigned to each habitat using condition assessment criteria detailed within the appropriate habitat condition sheets presented in The Statutory Biodiversity Metric User Guide (Draft) (Natural England, 2023). These condition assessment criteria list positive indicators for each habitat and indicate how many of these indicators need to be present to meet certain thresholds of condition. The habitat condition bands and corresponding scores are as follows:

- Good (3);
- Fairly Good (2.5);
- Moderate (2);
- Fairly Poor (1.5);
- Poor (1);
- Condition Assessment N/A (1); and
- N/A – Other (0).

Strategic Significance

2.2.11 Strategic significance in the DEFRA Statutory Biodiversity Metric considers the importance of each habitat on a landscape scale. For example, whether habitats are situated in preferred locations for biodiversity and other environmental objectives will be considered.

2.2.12 Strategic significance utilises published local plans and objectives to identify local priorities for targeting biodiversity and nature conservation objectives, such as Nature Recovery Areas/Networks, Biodiversity Opportunity Areas, local biodiversity actions plans and green infrastructure strategies. In summary, proposed developments within areas of strategic significance are assigned a higher connectivity band and corresponding strategic position multiplier than proposed developments that are not situated within areas of strategic significance. The strategic significance and corresponding scores are as follows:

- High (1.15) - *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 (1.10) - *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; and*
- Low (1) - *If the habitat is not included in local plans, strategy or policy.*

2.3 Post Development Habitat Creation and Enhancement

- 2.3.1 The detailed design information available to PJC Consultancy at the time of undertaking this assessment included the Illustrative Site Layout, drawing number: 23.073-100-P1 (On Architecture, 2024) and 'Landscape Masterplan' (Drawing No: 6569-LLB-XX-XX-DR-L-0001 – P03) (Lloyd Bore, 2024). The total number of area, hedgerow of the Site area post-development were calculated using this document.
- 2.3.2 The total number of habitat, hedgerow units generated by the Site area post-development was calculated in a similar way to calculating the ecological baseline. However, in addition to considering the area, distinctiveness, condition and strategic significance of each habitat, the key risks to delivering successful habitat creation, enhancement and succession initiatives were also taken into consideration through the application of various risk multipliers. The DEFRA Statutory Biodiversity Metric applies three risk multipliers. These are to account for the time taken for created or enhanced habitats to reach target condition (temporal multiplier); the distance between the Site and the location in which the compensation is being delivered (spatial multiplier: only applied if delivering habitat creation initiatives outside the Site), and how difficult the habitat creation and/or enhancement initiative is to deliver (difficulty multiplier). These various risk multipliers were automatically generated by the DEFRA Statutory Biodiversity Metric.
- 2.3.3 The area/length retained, enhanced and succeeded of each area-based, hedgerow habitat (succession is excluded for hedgerow habitats) previously identified as part of the ecological baseline calculation was inputted into the DEFRA Statutory Biodiversity Metric. The areas retained, enhanced and succeeded is defined as the following:
- Area/length retained: Area/length of each habitat parcel kept on the Site or off-Site area and protected throughout any development or landscaping process and featuring in final detailed designs;
 - Area/length enhanced: Area/length of each habitat parcel kept on the Site or off-Site area throughout any development or landscaping process but enhanced as part of the final detailed designs; and
 - Area succession: A specific process, "accelerated succession", in which habitat such as woodland is created on existing habitats such as grasslands (to be applied to area-based habitats only).

2.4 Competency of Assessor

- 2.4.1 The author of this report, Liam Mattingly BSc(Hons) has been a practising ecologist in ecological consultancy since 2021. During this time, Liam has assisted on and completed multiple BNG Assessments and accompanying reports, using both the DEFRA Statutory Biodiversity Metric (and previous versions) and DEFRA SSM.

2.5 Limitations

- 2.5.1 The total number of biodiversity units generated by the Site area pre-development has been informed by data collected as part of the extended phase 1 habitat survey, UKHab survey, habitat condition assessment, aerial imagery and a desktop study. However, the ecological value of the Site area post-development (number of habitat units and hedgerow units post-development) has been informed by the design information that was available at the time (Illustrative Site Layout, drawing number: 23.073-100-P1 (On Architecture, 2024)). 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. Given the various sources of information used and assessment/measurement



tools used to inform these calculations, it is possible that minor discrepancies exist, particularly between the size and length of the baseline habitats and post-development habitats. However, any discrepancies present are not anticipated to significantly influence the outcome of the various calculations and the overall BNG Design Stage assessment.

- 2.5.2 In addition to aiming to achieve BNG within developments, developers must implement avoidance, mitigation, compensation and/or enhancement measures required to prevent harm to legally protected species (such as nesting birds). Achieving BNG does not override the legal protection of these species and their habitats. Further information about avoidance, mitigation, compensation and/or enhancement measures required, are included in the Preliminary Ecological Appraisal report, document reference: 5543E/24-03 (PJC Consultancy, 2024).
- 2.5.3 This BNG report assumes that a Habitat Management and Monitoring Plan (HMMP) will be prepared setting out a long-term strategy (minimum of 30 years), detailing how all habitat mitigation, compensation and enhancement measures (including habitat creation, enhancement and succession initiatives) used to inform this BNG assessment will be delivered through initial landscape works and long-term future management and monitoring of the development Site and any relevant off-Site areas. Should planning permission be granted, a HMMP should be secured via a condition.



3 APPROACH TO BIODIVERSITY NET GAIN

3.1 Biodiversity Net Gain Good Practice Principles

3.1.1 BNG is an approach to development that leaves biodiversity in a better state than before. Ten principles when applied together, set out good practice for achieving BNG.

- Principle 1 Apply the Mitigation Hierarchy: Where possible, adverse impacts on biodiversity must be avoided. Where this is not possible, mitigation and compensation measures should be incorporated to reduce adverse impacts on biodiversity.
- Principle 2 Avoid losing biodiversity that cannot be offset by gains elsewhere: Avoid all adverse impacts on irreplaceable habitats; the BNG metric cannot be used to offset adverse impacts on irreplaceable biodiversity.
- Principle 3 Be inclusive and equitable: Stakeholders should be engaged with during the early design stages where possible, to achieve net gain in partnership.
- Principle 4 Address risks: Mitigate for any risks when achieving BNG and apply contingency when calculating biodiversity losses and gains.
- Principle 5 Make a measurable net gain contribution: Achieve a measurable net gain for biodiversity while contributing towards nature conservation priorities.
- Principle 6 Achieve the best outcomes for biodiversity: Use robust and credible evidence and local knowledge to inform decisions that appropriate for biodiversity.
- Principle 7 Be additional: Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway) that are realistic and deliverable within a relevant project timeframe.
- Principle 8 Create a net gain legacy: Ensure that net gain generates long-term benefits for biodiversity by considering external factors such as climate change and accounts for long-term adaptive management.
- Principle 9 Optimise sustainability: Recognise the wider environmental benefits to a sustainable society and the economy that can be achieved through BNG.
- Principle 10 Be transparent: Communicate net gain processes with stakeholders in a clear and timely manner.

3.2 Statutory Biodiversity Metric Principles

3.2.1 The key principles of the DEFRA Statutory Biodiversity Metric are as follows:

- Principle 1: The metric assessment should be completed by a competent person;
- Principle 2: The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands;
- Principle 3: This biodiversity metric should be used in accordance with established good practice guidance and professional codes;
- Principle 4: This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice;
- Principle 5: Biodiversity units are a proxy for biodiversity and should be treated as relative values;;
- Principle 6: This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance;
- Principle 7: Habitat interventions need to be realistic and deliverable within a relevant timeframe;



- *Principle 8: Created and enhance habitats should be, where practical and reasonable, local to any impact and deliver strategically important outcomes for nature conservation; and*
- *Principle 9: This biodiversity metric does not enforce a minimum habitat size ratio for compensation of losses. Proposals should aim to:*
 - *maintain habitat extent – supporting more, bigger, better and more joined up ecological networks.*
 - *ensure that proposed or retained habitat parcels are of sufficient size for ecological function.*

3.3 Statutory Biodiversity Metric Rules

3.3.1 In addition to the principles set out above, the following rules of the DEFRA Statutory Biodiversity Metric (Natural England, 2023) must be followed in order to achieve net gain:

- *Rule 1: The trading rules of this biodiversity metric must be followed. ‘Trading down’ must be avoided. Losses of habitat are to be compensated for on a “like for like” or “like for better” basis. New or restored habitats should aim to achieve a higher distinctiveness and/or condition than those lost.*
- *Rule 2: Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applies to each type of unit.*
- *Rule 3: To accurately apply the biodiversity metric formula, you must use the biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites.*
 - *The tools remove the need for a user to manually calculate the change in biodiversity value.*
 - *The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.*
- *Rule 4: in exceptional circumstances, deviation from this metric methodology may be permitted by the relevant planning authority. Any local or project-specific adaptations of the metric must be transparent and fully justified.*



4 ON-SITE BASELINE CONDITIONS

4.1 Irreplaceable Habitats

- 4.1.1 No irreplaceable habitat types were recorded within the Site. However, a single parcel of ancient woodland listed on the ancient woodland inventory were identified within the zone of influence as part of the desk study, the nearest being approximately 400m south-east of the Site.

4.2 Strategic Significance

- 4.2.1 The Site is not located within an area of strategic significance.

4.3 Area Based Habitats

- 4.3.1 A total of seven habitat types were recorded within the Site during the updated UKHab survey and habitat conditions assessment.
- 4.3.2 A description of the habitat types and classification as well as the total number of habitat units generated pre-development (ecological baseline), including the various attributes such as habitat distinctiveness, habitat condition, ecological connectivity and strategic significance of the habitats, are presented in Table 1 below.
- 4.3.3 Overall, the Site generated a total of 17.14 habitat units, with modified grassland contributing to the most habitat units. The majority of low distinctiveness habitat will be lost as part of the development and the majority of medium distinctiveness habitats will be retained to facilitate the proposed development.
- 4.3.4 A map displaying the extent of the area-based habitats on-Site, can be seen in Appendix III.

Table 1: On-Site Area-based Habitat Baseline.

Habitat ID	BNG Habitat Type	Distinctiveness	Condition	Strategic Significance	Area (ha)	Habitat Units
1	Modified grassland	Low	Moderate	Area/compensation not in local strategy/ no local strategy (1)	2.191	8.76
2	Bramble scrub	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy (1)	0.008	0.03
3	Bramble scrub	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy (1)	0.01	0.04
4	Bramble scrub	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy (1)	0.008	0.03
5	Bramble scrub	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy (1)	0.073	0.29
6	Bramble scrub	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy (1)	0.062	0.25



7	Mixed scrub	Medium	Good	Area/compensation not in local strategy/ no local strategy (1)	0.156	1.87
8	Ruderal/Ephemeral	Low	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.073	0.29
9	Blackthorn scrub	Medium	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.062	0.50
10	Developed land; sealed surface	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy (1)	0.002	0.00
11	Bare ground	Low	Poor	Area/compensation not in local strategy/ no local strategy (1)	0.005	0.01
12	Modified grassland	Low	Moderate	Area/compensation not in local strategy/ no local strategy (1)	1.12	4.48
13	Mixed scrub	Medium	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.035	0.28
14	Mixed scrub	Medium	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.038	0.30
Total (excluding trees)					3.84	17.14

4.3.5 The area of each previously identified area-based habitat to be retained/lost, enhanced post-development and corresponding total number of habitat units to be retained/lost and/or enhanced post-development is presented in Table 2 below.

Table 2: Total on-site habitat area (and corresponding number of area-based habitat units) to be retained, enhanced and/or lost post-development.

Habitat ID	Area of Habitat Retained (ha)	Baseline Habitat Units Retained	Area of Habitat Enhanced (ha)	Baseline Habitat Units Enhanced	Area of Habitat Lost (ha)	Habitat Units Lost
1	0.00	0.00	0.161	0.64	2.03	8.12
2	0.00	0.00	0.00	0.00	0.01	0.03
3	0.00	0.00	0.00	0.00	0.01	0.04
4	0.00	0.00	0.00	0.00	0.01	0.03
5	0.00	0.00	0.073	0.29	0.00	0.00
6	0.00	0.00	0.00	0.00	0.06	0.25
7	0.156	1.87	0.00	0.00	0.00	0.00



8	0.00	0.00	0.00	0.00	0.07	0.29
9	0.057	0.46	0.00	0.00	0.01	0.04
10	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.01	0.01
12	0.00	0.00	1.06	4.24	0.06	0.24
13	0.00	0.00	0.035	0.28	0.00	0.00
14	0.00	0.00	0.038	0.30	0.00	0.00
Total	0.21	1.37	2.33	5.76	2.26	9.05

4.4 Hedgerow Habitats

4.4.1 A total of two linear-based habitat types were recorded within the Site during the updated UKHab survey and habitat conditions assessment, which generated a total of 2.44 hedgerow units.

4.4.2 A description of the hedgerow type and proposed hedgerow condition as well as the total number of hedgerow units expected to be generated post-development are presented in Table 3 below.

Table 3: On-site hedgerow habitat baseline.

Hedgerow ID	Hedgerow Type	Distinctiveness	Condition	Strategic Significance	Length (km)	Hedgerow Units Delivered
1	Native hedgerow	Low	Poor	Area/compensati on not in local strategy/ no local strategy (1)	0.11	0.22
2	Line of trees	Low	Moderate	Area/compensati on not in local strategy/ no local strategy (1)	0.06	0.24
3	Line of trees	Low	Moderate	Area/compensati on not in local strategy/ no local strategy (1)	0.07	0.28
4	Line of trees	Low	Moderate	Area/compensati on not in local strategy/ no local strategy (1)	0.16	0.64
5	Line of trees	Low	Moderate	Area/compensati on not in local strategy/ no local strategy (1)	0.04	0.16
6	Line of trees	Low	Good	Area/compensati on not in local strategy/ no local strategy (1)	0.08	0.48
7	Line of trees	Low	Good	Area/compensati on not in local strategy/ no local strategy (1)	0.07	0.42



Total **0.59** **2.44**

- 4.4.4 The length of each previously identified hedgerow habitat to be retained/lost, enhanced post-development and corresponding total number of habitat units to be retained/lost and/or enhanced post-development is presented in Table 4 below.

Table 4: Total on-site hedgerow length (and corresponding number of linear-based habitat units) to be retained, enhanced and/or lost post-development.

Hedgerow ID	Length of Hedgerow Retained (km)	Baseline Hedgerow Units Retained	Length of Hedgerow Enhanced (km)	Baseline Hedgerow Units Enhanced	Length of Hedgerow Lost (km)	Hedgerow Units Lost
1	0.00	0.11	0.00	0.22	0.00	0.00
2	0.00	0.00	0.00	0.00	0.06	0.24
3	0.05	0.00	0.20	0.00	0.02	0.08
4	0.00	0.00	0.00	0.00	0.16	0.64
5	0.00	0.00	0.00	0.00	0.04	0.16
6	0.08	0.48	0.00	0.00	0.00	0.00
7	0.07	0.42	0.00	0.00	0.00	0.00
Total	0.20	0.11	1.10	0.22	0.28	1.12



5 ON-SITE POST-DEVELOPMENT HABITAT CREATION AND ENHANCEMENT ASSUMPTIONS

- 5.1.1 Full details of the habitats proposed for creation within the Site are included in the Illustrative Site Layout, drawing number: 23.073-100-P1 (On Architecture, 2024) which includes the incorporation of created or enhanced vegetated gardens, rural tree planting, other neutral grassland, scrub, hedgerows and an area reserved for the enhancement of enhanced grassland and scrub.
- 5.1.2 Post-development habitat types and areas have been taken from the landscaping layouts available. Assumptions have been made regarding the classification of habitats due to be implemented, and about the eventual condition of those habitats.

5.2 Area Based Habitats

- 5.2.1 Overall, seven habitat types; Developed land; sealed surface, vegetated garden, rural tree, mixed scrub, modified grassland, ponds (non-priority habitat) and other neutral grassland, as well as enhanced mixed scrub and other neutral grassland, are proposed to be incorporated into the proposed development, Illustrative Site Layout, drawing number: 23.073-100-P1 (On Architecture, 2024).
- 5.2.2 A description of the habitat type, proposed habitat condition and total number of area-based habitat units expected to be generated post-development, including the various attributes such as anticipated habitat distinctiveness, habitat condition, ecological connectivity and strategic significance of the area-based habitats, are presented in Tables 5 and 6 below.
- 5.2.3 A map displaying the extent of the area-based habitats expected to be created on-Site post-development, can be seen in Appendix V.

Table 5: Total area of newly created area-based habitats and total number of area-based habitat units generated through habitat creation within the Site post-development.

BNG Habitat Type	Distinctiveness	Expected Condition	Strategic Significance	Area (ha)	Habitat Units Delivered
Developed land; sealed surface	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy (1)	0.833	0.00
Vegetated garden	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy (1)	0.769	1.48
Rural tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.2646	0.81
Modified grassland	Low	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.224	0.78
Other neutral grassland	Medium	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.198	1.46
Mixed scrub	Medium	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.172	1.15
Rural tree	Medium	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.0814	0.25



Ponds (non-priority habitat)	Medium	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.06	0.23
Total (excluding trees)				2.26	6.16

Table 6: Total number of 'area-habitat units' generated by the Site post-development through habitat enhancement measures.

BNG Habitat Type	Distinctiveness	Condition pre-development	Condition pre-development	Strategic Significance	Area (ha)	Habitat Units Delivered
Modified grassland - Other neutral grassland	Low - Medium	Condition Assessment N/A (1)	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.161	1.20
Bramble scrub - Mixed scrub	Medium	Condition Assessment N/A (1)	Moderate	Area/compensation not in local strategy/ no local strategy (1)	0.073	0.54
Modified grassland - Other neutral grassland	Low - Medium	Condition Assessment N/A (1)	Good	Area/compensation not in local strategy/ no local strategy (1)	1.12	10.13
Bramble scrub - Mixed scrub	Medium	Condition Assessment N/A (1)	Good	Area/compensation not in local strategy/ no local strategy (1)	0.035	0.41
Bramble scrub - Mixed scrub	Medium	Condition Assessment N/A (1)	Good	Area/compensation not in local strategy/ no local strategy (1)	0.038	0.44
Total					1.37	12.72

5.3 Hedgerow Habitats

- 5.3.1 Overall, two hedgerow types; species-rich native hedgerow and native hedgerow, is proposed to be incorporated into the proposed development, Illustrative Site Layout, drawing number: 23.073-100-P1 (On Architecture, 2024).
- 5.3.2 A description of the hedgerow type, proposed hedgerow condition and total number of hedgerow units expected to be generated post-development, including the various attributes such as anticipated hedgerow distinctiveness, hedgerow condition, ecological connectivity and strategic significance of the hedgerow habitats, are presented in Tables 7 below.
- 5.3.3 A map displaying the extent of the hedgerow habitats expected to be created on-Site post-development, can be seen in Appendix V.

Table 7: Total area of newly created hedgerow habitats and total number of hedgerow units generated through habitat creation within the off-Site area post-development.

BNG Hedgerow Type	Distinctiveness	Expected Condition	Strategic Significance	Length (km)	Hedgerow Units Delivered
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Species-rich native hedgerow	Medium	Good	Location ecologically desirable but not in local strategy	0.06	0.52
Native hedgerow	Low	Poor	Area/compensation not in local strategy/ no local strategy	0.12	0.23
Total				0.18	0.75

Table 8: Total number of 'linear-based units' generated by the Site post-development through hedgerow enhancement measures.

BNG Hedgerow Type	Distinctiveness	Condition pre-development	Condition pre-development	Strategic Significance	Length (km)	Habitat Units Delivered
Native hedgerow – Species-rich native hedgerow	Low - Medium	Poor	Good	Location ecologically desirable but not in local strategy	0.11	1.25
Total					0.11	1.25



6 PROPOSED DESIGN

6.1.1 The feasibility of the chosen design to deliver BNG is detailed below.

6.2 Irreplaceable Habitats

6.2.1 Irreplaceable habitats will not be impacted throughout any phase of the proposed development.

6.3 Mitigation Hierarchy

6.3.1 Following the principles which are integral to Biodiversity Net Gain (Good Practice Principles for Development (CIEEM, CIRIA and IEMA, 2019)), the mitigation hierarchy has been considered during the initial design stage.

Avoidance

6.3.2 All retained trees and hedgerow will be subject to a no construction buffer zone around the root protection area of the shrubs/trees to ensure that no detrimental impacts to these features occur. Majority of medium distinctiveness habitats will be retained as part of the development in the form of scrub.

Mitigation

6.3.3 Tree protection fencing will be used throughout the construction phases of the proposed development to ensure impacts to the retained features, such as trees and hedgerow are minimised.

Compensation

6.3.4 A parcel of modified grassland will be enhanced to other neutral grassland to provide an increase in grassland habitat units and to reduce the unit deficit created by removing modified grassland within the northern area of the Site to facilitate the development. A new species-rich native hedgerow is also proposed to be incorporated to account for the minimal loss of hedgerow units on Site.

6.4 Assessment of Biodiversity Net Gain On-Site

6.4.1 Pre-development, the Site generates a total of 17.14 habitat units comprising five area-based habitat types:

- Modified grassland – low distinctiveness (equates to a total of 13.24 habitat units);
- Heathland and shrub (equate to a total of 3.60 habitat units);
 - Bramble scrub - medium distinctiveness; and
 - Mixed scrub – medium distinctiveness;
- Ruderal/ephemeral - low distinctiveness (equates to a total of 0.29 habitat units);
- Developed land; sealed surface – very low distinctiveness (equates to a total of 0.01 habitat units);

6.4.2 In addition, the Site generates a total of 2.44 hedgerow units pre-development; comprising two linear-based habitat types:

- Native hedgerow – low distinctiveness (equates to a total of 0.22 hedgerow units); and
- Line of trees – low distinctiveness (equates to a total of 2.22 hedgerow units).

6.4.3 Post-development, the Site is expected to generate a total number of 21.21 habitat units comprising six area-based habitat types:

- Urban (equating to 1.48 habitat units);
 - Developed land; sealed surface – very low distinctiveness; and
 - Vegetated garden – low distinctiveness.
- Rural trees – medium distinctiveness (equating to 1.06 habitat units);



- Mixed scrub – medium distinctiveness (equating to a total of 4.86 habitat units); and
- Grassland (equating to 13.57 habitat units);
 - Other neutral grassland - medium distinctiveness; and
 - Modified grassland – low distinctiveness.

Other neutral grassland – medium distinctives (equating to a total of 9.71 habitat units).

6.4.4 In addition, the Site is anticipated to generate a total of 3.10 hedgerow units comprising of a three created linear-based habitat types:

- Species-rich native hedgerow - medium distinctiveness (equates to a total of 1.77 hedgerow habitat units);
- Native hedgerow – low distinctiveness (equates to a total of 0.23 hedgerow units); and
- Line of trees - low distinctiveness (equates to a total of 1.10 hedgerow units).



7 CONCLUSION

- 7.1.1 BNG calculations, using the DEFRA Statutory Biodiversity Metric have been undertaken for the proposed development. The ecological baseline calculations have been informed by the findings of the PEA, and updated habitat conditions assessment and desktop study.
- 7.1.2 Pre-development, the Site supports a total number of seven broad habitat types; modified grassland, ruderal/ephemeral, bramble scrub, mixed scrub, developed land; sealed surface, blackthorn scrub and rural tree, which equates to a total of 17.14 area-based habitat units. In addition, the Site support two linear-based habitat types; line of trees and native hedgerow, which equates to a total of 2.44 hedgerow units.
- 7.1.3 Post-development, the Site is anticipated to support seven area-based habitat types; developed land; sealed surface, vegetated garden, rural tree, mixed scrub, modified grassland, ponds (non-priority) and other neutral grassland, which is anticipated to generate 21.21 habitat units. In addition, the Site is anticipated to support three broad linear-based habitat types; line of trees, native hedgerow and species-rich native hedgerow which is anticipated to generate 3.10 hedgerow units.
- 7.1.4 Therefore, this represents a total net gain of 4.06 area-based habitat units and a net gain of 0.66 hedgerow units across the Site, which equates to a net percentage change of 23.71% in area-based habitat units and 27.16% in hedgerow units.
- 7.1.5 The proposed development is therefore anticipated to deliver the minimum 10% BNG, due to the creation of areas of woodland, other neutral grassland, and tree planting, providing appropriate management is implemented to ensure the habitat achieves the most favourable condition.
- 7.1.6 On this basis, it is considered highly likely that a HMMP will need to be prepared, which will set out a long-term strategy (minimum of 30 years) detailing how all habitat mitigation, compensation and enhancement measures (including habitat creation, enhancement and succession initiatives) used to inform this BNG Design Stage report, will be delivered through initial landscape works and long-term future management and monitoring of the development Site and any relevant off-Site areas. Should planning permission be granted, a HMMP should be secured via a condition.



8 REFERENCES

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9 APPENDICES

Appendix I: Site Location Plan



Appendix II: Legislation and Planning Policy

Legislation

The Natural Environment and Rural Communities Act (NERC) 2006

Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'. Section 41 of the Act provides a list of habitats and species, which are of 'principal importance for the conservation of biodiversity.' This list aids decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications.

The Environment Act (2021)

The Environment Act (2021) is the UK's framework of environmental protection, post Brexit, and provides binding targets for improving air quality, water, biodiversity, and waste reduction. The Environment Act requires all development schemes in England (that are subject to Town and Country Planning Act 1990) to deliver a mandatory 10% biodiversity net gain (BNG) to be maintained for a period of at least 30 years. The concept seeks measurable improvements for biodiversity by creating or enhancing habitats in association with development. Key parts of the Environment Act 2021 which relate to BNG and its delivery are Part 6: Nature and Biodiversity and the supporting Schedule 14, particularly sections 9(3), 13(1), 14(2) and 15.

Biodiversity Policies

National Planning Policy Framework (NPPF) 2023

Published in 2023 the NPPF sets out the Government's planning policies for England and how these are expected to be applied by local authorities. It replaces all the Planning Policy Statements and Guidance (PPSs and PPGs). The NPPF emphasises the need for sustainable development, whilst specifying the need for protection of designated Sites and priority habitats and priority species (as listed in section 41 of the Natural Environment and Rural Communities (NERC) Act 2006). Paragraph 174 of The National Planning Policy Framework (NPPF) states:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, Sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land,



where appropriate.”

Paragraph 179 states that “to protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated Sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

Furthermore, paragraph 185 states that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative Site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the Site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Paragraph 181 states:

“The following should be given the same protection as habitats Sites:

- potential Special Protection Areas and possible Special Areas of Conservation;
- listed or proposed Ramsar Sites; and
- Sites identified, or required, as compensatory measures for adverse effects on habitats Sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar Sites.”

Paragraph 182 states:

“The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats Site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats Site.”

The UK Biodiversity Framework (2011-2020).



The UK Biodiversity Framework is an important framework that is owned, governed and implemented by the four UK countries, assisted by Defra and JNCC in their UK co-ordination capacities. Although differing in details and approach, the four UK countries have published strategies which promote the same principles and address the same global targets: joining-up our approach to biodiversity across sectors; and identifying, valuing and protecting our 'Natural Capital' to protect national well-being now and in the future. This new framework has been developed to enhance the recovery of priority habitats and species in England (published under section 41 of the NERC Act 2006), thereby contributing to the delivery of the England Biodiversity Strategy. The framework has been developed and endorsed by the England Biodiversity Group and wider partnership. It is the starting point for a more integrated approach to biodiversity conservation in England, building on the strengths of the former UK Biodiversity Action Plan (BAP) process and improving those areas where insufficient progress was being made.

Ashford Local Plan 2023

The Ashford borough council core strategy sets out the relevant policies for the control of development with regards to the natural environment and biodiversity.

Policy ENV1

Biodiversity Proposals that conserve or enhance biodiversity will be supported. Proposals for new development should identify and seek opportunities to incorporate and enhance biodiversity. In particular, development should take opportunities to help connect and improve the wider ecological networks.

Proposals should safeguard features of nature conservation interest and should include measures to retain, conserve and enhance habitats, including BAP (Priority) habitats, and networks of ecological interest, including ancient woodland, water features, ditches, dykes and hedgerows, as corridors and stepping stones for wildlife.

Development that will have an adverse effect on the integrity of European protected Sites, including the Wye and Crundale Special Area of Conservation and the Dungeness, Romney Marsh and Rye Bay Ramsar and SPA sites, alone or in combination with other plans or projects, will not be permitted. Any proposal capable of affecting designated interest features of European sites should be subject to Habitats Regulations Assessment screening.

Development that will have an adverse effect on nationally designated sites, including the borough's Sites of Special Scientific Interest and National Nature Reserves, will not be permitted unless the benefits, in terms of other objectives including overriding public interest, clearly outweigh the impacts on the special features of the site and broader nature conservation interests and there is no alternative acceptable solution.

Development should avoid significant harm to locally identified biodiversity assets, including Local Wildlife Sites, Local Nature Reserves and the Ashford Green Corridor as well as priority and locally important habitats and protected species. The protection and enhancement of the Ashford Green Corridor is one of the key objectives of the Plan and therefore all proposals coming forward within or adjoining the Ashford Green Corridor should comply with Policy ENV2 in the first instance.

Where harm to biodiversity assets cannot be avoided, appropriate mitigation will be required in line with a timetable to be agreed with the Local Authority. Normally any mitigation measures will be required to be delivered on-site, unless special circumstances dictate that an off-site model is more appropriate. A financial contribution - in lieu of on-site mitigation - will only be considered in very exceptional circumstances and where it is demonstrated that the proposed mitigation is deliverable and effective.



Opportunities for the management, restoration and creation of habitats in line with the opportunities identified for the Biodiversity Opportunity Areas (BOAs) and targets set out in the Kent Biodiversity Strategy will be supported.

Policy ENV2 The Ashford Green Corridor

The protection and enhancement of Ashford's Green Corridor is a key objective.

Development proposals within the identified Corridor designation (and proposed extensions) will be permitted, providing that it is compatible with, or ancillary to, their principal open space use or other existing uses, and it can be demonstrated that the proposal would not cause significant harm to the overall environment, biodiversity, visual amenity, movement networks or functioning of the Green Corridor.

Other forms of development proposals within the Green Corridor will not be permitted, unless it would be in accordance with a site specific policy in this Local Plan; or where it relates to a) the redevelopment of a suitable brownfield site or b) delivers overriding benefits, and in either scenario, that it can be demonstrated that there would be no significant harm to the overall environment, biodiversity, visual amenity, movement networks or functioning of the Green Corridor.

Development proposals on land adjoining the Green Corridor shall provide suitable access and links to the existing movement networks of the adjoining Green Corridor wherever possible. They must not cause significant harm to any of the key features and functions, and should make a positive contribution to the Green Corridor in respect of its environment, biodiversity, visual amenity, movement networks or functioning and its setting.

Development proposals must take into consideration the appraisals, projects and management recommendations set out for the specific areas in the Ashford Green Corridor Action Plan, including the identified proposed extension areas to the designation.

Policy ENV3a - Landscape Character and Design

All proposals for development in the borough shall demonstrate particular regard to the following landscape characteristics, proportionately, according to the landscape significance of the site:

- a) Landform, topography and natural patterns of drainage;*
- b) The pattern and composition of trees and woodlands;*
- c) The type and composition of wildlife habitats;*
- d) The pattern and composition of field boundaries;*
- e) The pattern and distribution of settlements, roads and footpaths;*
- f) The presence and pattern of historic landscape features;*
- g) The setting, scale, layout, design and detailing of vernacular buildings and other traditional man made features;*
- h) Any relevant guidance given in the Landscape Character SPD;*
- i) Existing features that are important to and contribute to the definition of the local landscape character shall be retained and incorporated into the proposed development; and,*
- j) Any non-designated, locally-identified, significant landscape features justified in a Parish Plan or equivalent document.*

Policy ENV3b – Landscape Character and Design in the AONBs

The Council shall have regard to the purpose of conserving and enhancing the natural beauty of the Kent Downs and High Weald AONBs. Major development proposals within the AONBs will only be permitted in exceptional circumstances and where it is demonstrated they are in the public interest. All proposals within or affecting the setting of AONBs will also only be permitted under the following circumstances:

- The location, form, scale, materials and design would conserve and where appropriate enhance or restore the character of the landscape.*



- *The development would enhance the special qualities, distinctive character and tranquility of the AONB.*
- *The development has regard to the relevant AONB management plan and any associated guidance.*
- *The development demonstrates particular regard to those characteristics outlined in Policy ENV3a, proportionate to the high landscape significance of the AONB.*

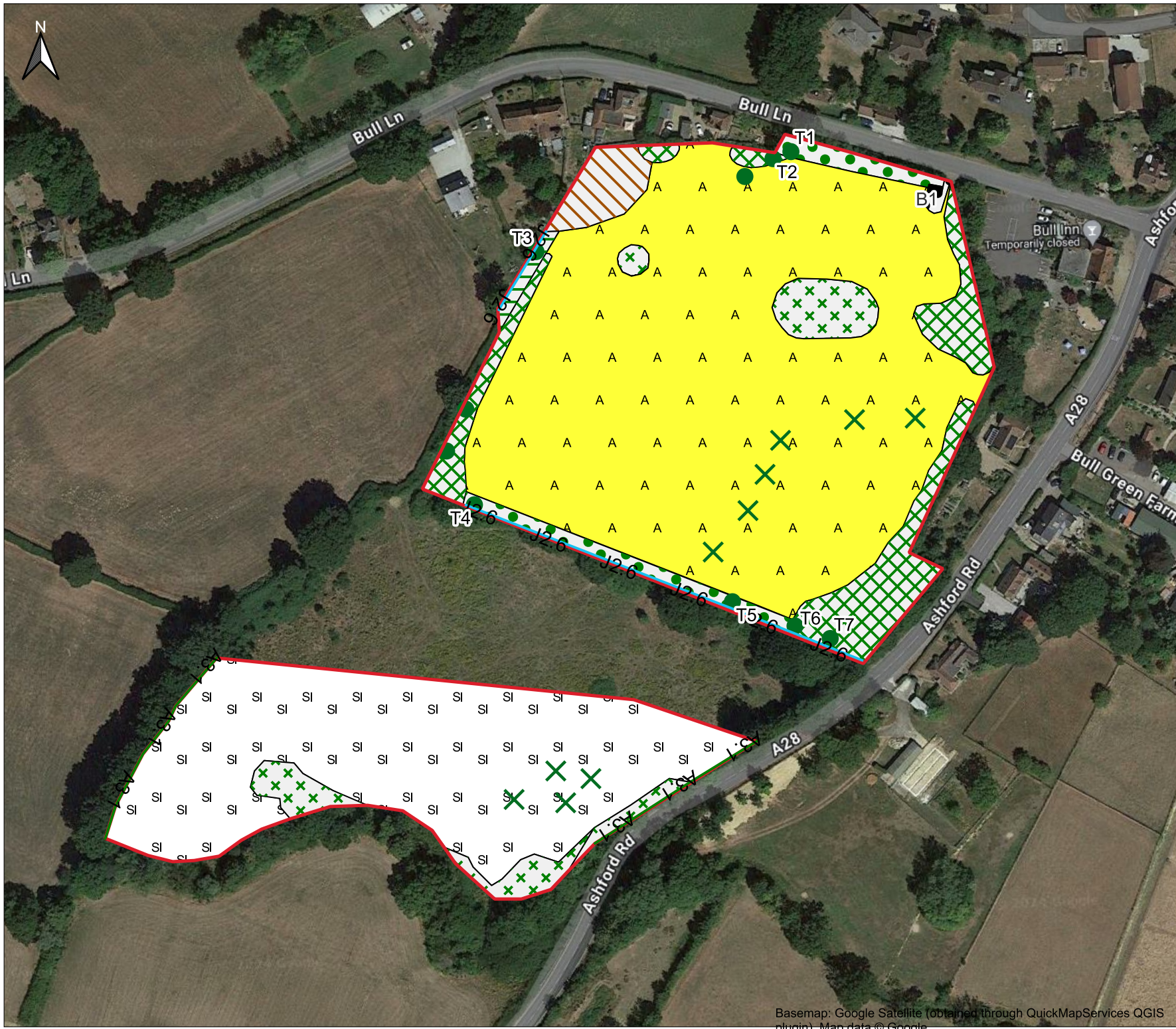
Policy ENV5 – Protecting Important Rural Features

All development in the rural areas of the Borough shall protect and, where possible, enhance the following features:

- a) Ancient woodland and semi-natural woodland;*
- b) River corridors and tributaries;*
- c) Rural lanes which have a landscape, nature conservation or historic importance;*
- d) Public rights of way; and,*
- e) Other local historic or landscape features that help to distinguish the character of the local area.*



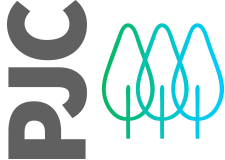
Appendix III: On-Site Phase 1 Habitat Map



LEGEND:

- A3.1- Scattered Broadleaved Trees
- A2.2 - Scattered Scrub
- A2.1 - Scrub - Dense/Continuous
- A2.2 - Scrub - Scattered
- A3.1 - Broadleaved Parkland/ Scattered Trees
- B6 - Poor semi-improved grassland
- C3.1 - Other Tall Herb and Fern - Ruderal
- J1.2 - Cultivated/Disturbed Land - Amenity Grassland
- J2.1.2 - Intact Hedge - Species-Poor
- J3.6 - Buildings
- J4 - Bare ground
- A3.1 - Broadleaved Parkland/scattered
- J2.6 - Dry ditch
- Site Boundary

STATUS: FOR INFORMATION ONLY



Sussex Office: Rocks Yard, Victoria Rd, Herstmonceux, Hailsham, BN27 4TQ.
TN26 1AE
T: 01323 832120.

Kent Office: The Watermill, The Mill Business Park, Maidstone Road, Ashford, Kent.
TN26 1AE
T: 01233 225365
E: contact@pjcoconsultancy.com
W: <https://www.pjcoconsultancy.com>

CLIENT: Esquire Developments

PROJECT:
Land to the rear of Bull Inn
Kent
TN26 3HA

TITLE:
Appendix III: Phase 1 Habitat Map

SCALE AT A4: 1:1,860	DRAWN: LM	APPROVED: TK
PROJECTION: EPSG:27700	DATE: 26/02/24	DATE: 19/07/24

DRAWING No:
PJC/5543E/24/A3/V2



Appendix IV: Landscaping Plan

Existing Boundary vegetation to be cut back well beyond the visibility line allowing for future vegetation growth and a grass verge created in order to maintain visibility plays from the new access road.

New Woodland Buffer area created to provide localised screening of the development. Provide for ecology and bio-diversity requirements, and provide visual and seasonal interest.

New Native species hedgerow to be created along site boundary to provide for ecology and bio-diversity requirements and provide local screening of development.

Site boundary vegetation to be retained and reinforced with new native field hedgerow and tree planting.

Open areas comprising of nectar and pollen rich wild flower and grassland seed mix to provide a source of food for insects and invertebrates. Provide for ecology and bio-diversity requirements, and providing visual and seasonal interest.

Ornamental clipped hedges used within residential gardens and to front garden boundaries to define public from private spaces.

Private front gardens to be planted with wildlife friendly plants to create an attractive setting to the dwellings whilst also adding to wider visual interest and ecological value.

Where space permits features trees are proposed to provide visual variety and focal points to the street scene.

Ornamental clipped hedges used within residential gardens to define public from private spaces.

Open areas comprising of nectar and pollen rich wild flower and grassland seed mix to provide a source of food for insects and invertebrates. Provide for ecology and bio-diversity requirements, and providing visual and seasonal interest.

Change of surfacing used to define entrance to residential areas and assist with traffic calming.

Proposed naturalistic equipped play area with safety surface

Existing mature trees to be retained

Proposed Site for Sustainable Urban Drainage System (SUDs) comprising a range of seasonally wetswales and attenuation ponds with permanent water, designed in conjunction with landscape / ecological strategy to create attractive features which will enhance biodiversity and encourage wildlife.

Proposed Semi-Natural space, supporting a range of habitat types including tree and shrub planting, scrub and wildflower grassland, providing habitat for a variety of wildlife species.

New tree and shrub planting along the southern boundary to reinforce the existing watercourse vegetation and to enhance biodiversity and encourage wildlife.

LEGEND



Proposed Dwellings



Native Scrub Planting



Private Lawn



Mixed Native Species Hedgerow



Woodland Buffer Planting



Ornamental Hedge



Existing Vegetation Retained



Access Road



Proposed Trees (Indicative)



Public Footpath



SUDs/Water Retention Pond



Proposed shrub planting areas



Wildflower grassland



Existing Trees



scale bar

This drawing and design are the copyright of Lloydbore Ltd. Do not scale from this drawing. All dimensions to be checked on site by contractor prior to commencement of any work. All materials, components and workmanship shall comply with the relevant British Standards, Codes of Practice and manufacturers written instructions.

rev.	rev. date	auth.
P01	21/06/24	RC
P02	28/06/24	RC
P03	08/07/24	RC

rev. note
Initial Version
Adapted to visibility play vegetation and area of hard standing. Updated with final site layout & SUD
Updated to show altered red line boundary

rev.	rev. date	auth.	rev. note
------	-----------	-------	-----------

client: **Esquire Developments Ltd**
project: **Land to rear of Bull Inn**
Bull Lane, Bethersden, TN26 3LB

drawing no. **6569-LLB-XX-XX-DR-L-0001**
drawing title: **Landscape Master Plan**

rev.	rev. date
P03	08.07.24
S2	1:750
scale:	A1
sheet:	RC
drawn:	RC
checked:	AC

lloyd bore landscape ecology arboriculture
33 ST. GEORGE'S PLACE, CANTERBURY, KENT, CT1 1UT
t: 01227 464 340

KEY

1
2

Existing boundary vegetation retained.

Proposed small street trees
Pyrus calleryana 'Redspire'
Fraxinus excelsior 'Athena'
Prunus 'Kanzan'

Proposed medium broadleaf trees
Acer campestre
Sorbus aucuparia
Sorbus aria
Sorbus terminalis
Crataegus monogyna
Prunus padus
Prunus avium

Woodland Buffer tree planting under planted with a native shrub species including.

TREES

Acer campestre
Crataegus monogyna
Ulmus Dodens
Sorbus terminalis
Prunus padus
Prunus avium

SHRUBS

Corylus avellana
Viburnum Opulus
Salix caprea
Salix cinerea
Clematis vitalba
Lonicera periclymenum

Native species field hedge to site boundary.

60% *Crataegus monogyna*
10% *Prunus spinosa*
5% *Prunus avium*
7.5% *Corylus avellana*
7.5% *Viburnum Opulus*
5% *Euonymus europaeus*
2.5% *Rosa canina*
2.55% *Lonicera periclymenum*

Pollen & Nectar wild flower meadow grassland comprising 80% grass species and 20% Wild Flowers including.

Yarrow - *Achillea millefolium*
Daisy - *Bellis perennis*
Ladies - *Bedstraw Galium verum*
Cats-ear - *Hypochaeris radicata*
Smooth Hawkbit - *Leontodon autumnale*
Rough Hawkbit - *Leontodon hispidus*
Birdsfoot Trefoil - *Lotus corniculatus*
Ribwort Plantain - *Plantago lanceolata*
Cowslip - *Primula veris*
Selfheal - *Prunella vulgaris*
Bulbous Buttercup - *Ranunculus bulbosus*
Dandelion - *Taraxacum officinale*
Red Clover - *Trifolium pratense*

New mixed species ornamental hedge.

30% *Grisselinia littoralis*
20% *Photinia Red Robin*
20% *Viburnum tinus*
10% *Escallonia rubra macrantha*
20% *Ribes sanguineum* 'King Edward VII'

Wildlife beneficial ornamental shrub & herbaceous planting including.

Berberis spp
Rosa spp
Hebe spp
Lavendula spp
Forsythia spp
Ribes spp
Skimmia spp
Hamamelis spp
Geranium spp
Verbena spp
Nepeta spp
Helleborus spp

A Location for proposed timber log pile. (6 nr)

B Location for proposed bug hotel. (4 nr)

C Proposed location for bat boxes. (3 nr. 2F Schwegler bat boxes)

D Proposed location for Generalist Bird Nesting Box (2 nr. 1N Schwegler Deep Nest Box & 2 nr. Schwegler 1B Bird Box – 32mm hole.)

NOTE: All plant species listed above are illustrative only and will be subject to detailed review as part of detailed planting plans



Appendix V: Condition sheets

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)													
UK Habitat Classification (UKHab) Habitat Type													
Grassland - Modified grassland													
Habitat Description													
All habitat descriptions within PEA 5543E/24-03 (PJC Consultancy, 2024)													
ukhab – UK Habitat Classification													
On-site or off-site, site name and location	On-site, Bull Inn Bethersden	Survey date and Surveyor name		24/04/2024 Liam Mattingly BSc									
		Survey reference (if relating to a wider survey)											
Limitations (if applicable)		Habitat parcel reference											
		G1	G2										
Grid reference													
Condition Assessment Criteria												Notes (such as justification)	
		Criterion passed (Yes or No)											
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	Y	Y										
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Y	Y										
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	N	N										
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	N	N										
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	N	N										
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y	Y										
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Y	Y										
Essential criterion achieved (Yes or No)		Y	Y										
Number of criteria passed		4	4										
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/√											
Passes 6 or 7 criteria including passing essential criterion A	Good (3)												
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	4	4										
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)												
Suggested enhancement interventions to improve condition score													

Footnotes

Footnote 1 – Creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* , white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris* .

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

[illegible]

B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	y														
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	n														
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	n														
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA ³) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website ⁴ , as well as the BSBI website ⁵ where the 'Online Atlas of the British and Irish Flora' ⁶ contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website ⁷ .	y														
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	n														
Additional group - applicable to hedgerows with trees only																		
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient ⁸), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.															
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.															

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees

Category	Category Requirements	Metric Score
Good	No more than 2 failures in total; AND No more than 1 failure in any functional group.	3
Moderate	No more than 4 failures in total; AND <u>Does not fail both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2

Poor	Fails a total of more than 4 attributes; OR Fails <u>both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
Score achieved:		
Condition categories for hedgerows with trees		
Category	Category Requirements	Metric score
Good	No more than 2 failures in total; AND No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; AND Does not fail <u>both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2
Poor	Fails a total of more than 5 attributes; OR Fails <u>both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
Score achieved:		
Suggested enhancement interventions to improve condition score		

Condition Sheet: SCRUB Habitat Type														
Habitat Types														
Heathland and shrub - Blackthorn scrub														
Heathland and shrub - Gorse scrub														
Heathland and shrub - Hawthorn scrub														
Heathland and shrub - Hazel scrub														
Heathland and shrub - Mixed scrub														
Heathland and shrub - Dunes with sea buckthorn (H2160)														
Heathland and shrub - Willow scrub														
Habitat Description														
All habitat descriptions within PEA 5543E/24-03 (PJC Consultancy, 2024)														
For Dunes with sea buckthorn see: Dunes with sea-buckthorn (Dunes with Hippophae rhamnoides) - Special Areas of Conservation (incc.gov.uk)														
For other scrub types see: ukhab – UK Habitat Classification														
On-site or off-site, site name and location	Survey date and Surveyor name			24th April 2024 by Liam Mattingly BSc(Hons)										
	Survey reference (if relating to a wider survey)													
Limitations (if applicable)	Habitat parcel reference													
	s1	s2	S3											
Condition Assessment Criteria	Grid reference													
			Criterion passed (Yes or No)										Notes (such as justification)	
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). ¹ - At least 80% of scrub is native, - There are at least three native woody species ² , - No single species comprises 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).	n	n	n										
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	y	y	y										
C	There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of suboptimal condition ⁶ make up less than 5% of ground cover.	y	y	y										
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	n	n	n										
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	y	y	y										
Number of criteria passed														
Condition Assessment Result (out of 5 criteria)		Condition Assessment Score		Score Achieved x/√										
Passes 5 criteria		Good (3)												
Passes 3 or 4 criteria		Moderate (2)		Y	Y	y								
Passes 2 or fewer criteria		Poor (1)												
Suggested enhancement interventions to improve condition score														

Condition Sheet: URBAN Habitat Type												
Habitat Types												
Sparsely vegetated land - Ruderal/Ephemeral Sparsely vegetated land - Tall forbs Urban - Allotments Urban - Biodiverse green roof Urban - Bioswale Urban - Cemeteries and churchyards Urban - Facade-bound green wall Urban - Ground based green wall Urban - Intensive green roof Urban - Open mosaic habitats on previously developed land Urban - Rain garden Urban - Sustainable drainage system (SuDS) Urban - Vacant or derelict land Urban - Bare ground												
Habitat Description												
All habitat descriptions within PEA 5543E/24-03 (PJC Consultancy, 2024)												
See the Statutory Biodiversity Metric User Guide for green roofs, and UK Habitat Classification (UKHab) for other habitats: ukhab – UK Habitat Classification												
On-site or off-site, site name and location		Survey date and Surveyor name		24th April 2024 respectively by Liam Mattingly BSc(Hons)								
		Survey reference (if relating to a wider survey)										
Limitations (if applicable)		Habitat parcel reference										Notes (such as justification)
		u1										
Condition Assessment Criteria		Grid reference										
		Criterion passed (Yes or No)										
Core Criteria - must be assessed for all urban habitat types:												
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	y										
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	y										
C	Invasive non-native plant species (listed on Schedule 9 of WCA ¹) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area ³ . Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	n										
Additional Criterion - must be assessed for Open mosaic habitat on previously developed land only:												
D	The parcel shows spatial variation and forms a mosaic of bare substrate PLUS: - At least four early successional communities (a) to (i); Communities: (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland, (i) pools.											
Additional Criteria - must be assessed for Bioswale and SuDS habitat types only:												
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife ⁴ .											
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.											
Additional Criterion - must be assessed for Intensive green roofs only:												
F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).											
Additional Criterion - must be assessed for Biodiverse green roofs only:												

G	The roof has a varied depth of 80 – 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers.												
	Note – to achieve Good condition, some additional habitat, such as sand piles, stones, logs etc. are present.												
Essential criteria relevant for habitat type achieved (Yes or No)													
Number of criteria passed													
Condition Assessment Result		Condition Assessment Score		Score Achieved */√									
Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):													
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C.		Good (3)											
• Passes 2 of 3 core criteria; OR • Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)											
• Passes 0 or 1 of 3 core criteria.		Poor (1)											
Results for Green roofs and Open mosaic habitat on previously developed land (requiring assessment of 4 criteria only - core criteria plus additional criterion specified for habitat type):													
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes additional criterion relevant to specific habitat type (D, F or G).		Good (3)											
• Passes 2 or 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)											
• Passes 0 or 1 of 4 criteria.		Poor (1)											
Results for Bioswale or SuDS (requiring assessment of 5 criteria - core criteria plus additional criteria specified for habitat type):													
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes all additional criteria relevant to specific habitat type (Group E)		Good (3)											
• Passes 3 or 4 of 5 criteria; OR • Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)											
• Passes 2 or fewer of 5 criteria.		Poor (1)											
Suggested enhancement interventions to improve condition score													
Footnotes													



CONTACT DETAILS

Sussex Office:

Rocks Yard
Victoria Road
Herstmonceux
Hailsham
East Sussex
BN27 4TQ

Tel: 01323 832120

Kent Office:

The Watermill
The Mill Business Park
Maidstone Road
Ashford
Kent
TN26 1AE

Tel: 01233 225365

Author: Liam Mattingly BSc(Hons)

Date: 24th October 2024

E-mail: liam@pjconsultancy.com