Bridge End

Design Stage Biodiversity Net Gain Assessment

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Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

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Comments

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Executive Summary

Waterman Infrastructure & Environment Ltd (Waterman IE) was commissioned by Architects Plus to carry out a Biodiversity Net Gain (BNG) Assessment at Bridge End, Egremont to accompany a planning application for a proposed new two-story link extension to link two existing commercial buildings (hereafter referred to as the 'Proposed Development').

A Landscape Plan has been produced to accompany the planning application for the Site. Based on this Landscape Plan, the Proposed Development currently predicts a net gain of **+17.95% biodiversity habitat units for the Habitat Module and +761.6% hedgerow units for the Hedgerow Module**.

Habitat loss across the Site required as part of the Proposed Development relates to low quality habitat associated with the urban environment and includes urban trees (two), bare ground and introduced shrub. Other habitats loss includes a small area of broadleaved woodland and complete loss of all existing modified grassland present on Site (pre-development).

The Landscape Plan includes the retention of some broadleaved woodland, some introduced shrubs and urban trees (four). Habitat creation post-development includes the creation of some broadleaved woodland, introduced shrub, modified grassland, other neutral grassland and 16 urban trees. Linear creation post-development includes non-native and ornamental hedgerow and species-rich native hedgerow with trees.

The trading rules associated with a design stage BNG assessment are predicted to be met. This means that the habitat to be lost as part of the Development are proposed to be compensated with habitats of an equal or greater distinctiveness.

The ten BNG good practice principles have been followed as part of this Development, and all compensation of habitat losses on the Site are deemed to be 'meaningful' and in line with guidance[1].

[1] CIEEM (2019) Biodiversity Net Gain. Good Practice Principles for Development

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1. Introduction

1.1. Waterman Infrastructure & Environment Ltd (Waterman IE) was commissioned by Architects Plus to carry out a Biodiversity Net Gain Assessment (BNG) at Unit 10 and 14, Bridge End, Egremont (hereafter referred to as the 'Site') to inform a planning application of a proposed new two-story link extension to link two existing commercial buildings (hereafter referred to as the 'Proposed Development').

1.2. This report should be read in conjunction with the following standalone document:

- Ecological Impact Assessment (EcIA)[2] report (hereafter referred to as the 'EcIA').

Site Setting

1.3. The Site is locally situated within a business park and consists of two buildings, access roads and relevant parking which has been used to support commercial activities. Historic mapping shows this land use has been relatively consistent since at least 2003.

1.4. The Site is 0.86 hectares (ha) in area, centred on Ordnance Survey Grid Reference NY 10321 10129.

1.5. The majority of the Site comprises buildings and hardstanding. Other habitats on Site include individual trees, line of trees, modified grassland, introduced shrub, broadleaved woodland and sparsely vegetated land.

1.6. The following Statutory Biodiversity Metric habitat categories (as converted from corresponding UK Habitat classification (UKHab) codes) were recoded as part of the EcIA (UKHab field survey) undertaken in July 2023:

- Developed land; sealed surface
- Bare ground
- Urban tree
- Modified grassland
- Introduced shrub
- Other woodland; broadleaved
- Line of trees

1.7. The extent of the Site together with the location and extent of these habitats are provided in **Figures 1** and **2.**

Proposed Development

1.8. The Proposed Development as shown within the Landscape Plans (**Appendix A**), will comprise a proposed new two-story link extension to link two existing commercial buildings on-Site which will extend across an area of existing grassland and associated ground works.

Relevant Policy & Legislation

1.9. In England, a 10% BNG became mandatory for most new developments under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021[3] (see detailed regulations)) on the 12th February 2024. This means a new Development must result in more or better-quality natural habitat than there was before the Development, measured in biodiversity units.

[2] Waterman IE (2024) Ecological Impact Assessment ref: WIE21010-101-2-1-9 Bridge End EcIA

[3] HMSO (2021) The Environment Act. Schedule 7A

1.10. The following planning policies were considered relevant to this assessment full details of which are provided in **Appendix B:**

- National Planning Policy: National Planning Policy Framework, 2023[4]; and
- Local Planning Policy: Cumberland Council Planning Policy

Objectives of this BNG

1.11. As detailed within industry guidance[5], a design stage BNG assessment should be used to form part of a planning application submission alongside an EcIA Report.

1.12. The purpose of this design stage BNG assessment is to:

- Assess the condition of all habitats on and off Site under guidelines[6];
- Follow industry guidance[7] to calculate the BNG Baseline score for the Site pre-development, and explain how the Statutory Metric[8] has been used to calculate BNG Baseline;
- Show how the Proposed Development achieves the targeted minimum of +10% BNG for each 'Module' of the Metric (Habitat Module, Hedgerow Module, and Watercourse Module);
- Justify how each of the BNG 'Good Practice Principles'[9] would be applied; and
- Indicate how BNG can be achieved for the Watercourse Module at the post-planning condition stage.

1.13. In line with BNG Planning Practice Guidance (PPG)[10] it is expected that the Proposed Development, if consented and subject to the view of Copeland Council, would be subject to a pre-commencement planning condition for the provision of a Biodiversity Gain Plan and the provision of a Habitat Management and Monitoring Plan (HMMP) for on-Site gains. The HMMP is required to cover a minimum 30-year period.

[4] Department of Communities and Local Government. (2023). National Planning Policy Framework.

[5] CIEEM (2021). Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK.

[6] Defra (2024) Statutory biodiversity metric condition assessments

[7] Defra (2024) The Statutory Metric – User guide.

[8] Defra (2024) The Statutory Metric – Calculation Tool.

[9] CIEEM (2019) Biodiversity net gain. Good practice principles for Development.

[10] Gov.uk (2024) Planning Practice Guidance [accessed from: Biodiversity net gain - GOV.UK (www.gov.uk)]

2. Methodology

Guidance

2.1. This assessment has been produced in accordance with the BNG Good Practice Principles[11] and follows the methodology set out in the following guidance document:

- The Statutory Metric – User Guide[12] (hereafter referred to as 'the User Guide').

2.2. The three stages of the mitigation hierarchy (as detailed in the above guidance document), avoidance, minimisation and compensation have been considered in the design of the Development. The habitats that were present on Site have been assessed for their distinctiveness and condition. Those habitats that will need to be removed (their loss cannot be avoided but will be minimised) as a result of the Landscape Plans (**Appendix A**) will be compensated.

2.3. The methodology set out below defines a simplified version of the method used to carry out the design stage BNG assessment. For full details including methodology refer to the guidance document referenced above.

Study Area and Baseline Survey

2.4. The assessment or study area was defined by the redline planning boundary (on-Site area) as presented in **Figures 1** and **2**.

2.5. For the purposes of this assessment, all individual sections of Habitat and Hedgerow (see the 'Statutory Metric' section below for more details on these Modules) are defined as 'Parcels'.

2.6. A Field Survey was undertaken on 28th of August 2024 by Principal Consultant Ecologist Karl Harrison MCIEEM, Natural England Class Level 2 Bat Licence holder (2017-32750-CLS-CLS) and Consultant Ecologist Carney Burvill (qualifying member of CIEEM). Weather conditions were 16°C, with drizzle, low clouds and winds of 8mph northernly.

2.7. During this survey, the type, condition and extent of each Parcel was recorded. Baseline information on Habitat and Hedgerow Parcels can be found within the EcIA.

2.8. GIS software was used to establish the area/length of each Parcel. Further analysis was undertaken on each Parcel to determine its condition (condition assessment), and strategic significance (policy review).

[11] CIEEM (2019) Biodiversity net gain. Good practice principles for Development. London, UK

[12] Defra (2024) The Statutory Metric – User Guide.

Statutory Metric

2.9. This assessment has been completed using the Statutory Metric Calculation Tools (hereafter referred to as the 'Metric')[13] and has been written in line with current guidance[14]. The Metric calculates biodiversity unit scores (which are a proxy for true biodiversity value) and uses these to indicate percentage change in biodiversity as a result of a development.

2.10. In line with standard good practice guidance, the ten principles of BNG (**Appendix C**) have been applied to the Proposed Development where possible prior to authoring this report, which were intended to inform the process of master planning and development design. These ten principles, when applied together, set out a good practice framework for achieving BNG.

2.11. The Metric generates a value measured in 'biodiversity units' for a Site before Development commences (referred to as the 'Baseline') and after development is completed (referred to as the 'Post-Development'). This allows the difference (positive or negative) to be measured in an output given as a percentage change (referred to as 'Biodiversity Net Gain' or 'BNG').

2.12. The Metric assesses three individual 'Modules' for BNG, each Module is assessed individually, and each has to achieve +10% BNG for the Site to achieve BNG as a whole. The Modules are detailed below:

- Habitat Module;
- Hedgerow Module;
- Watercourse Module.

2.13. The Metric uses inputs based on habitats and their quality. As such for each Parcel[15] a biodiversity unit is generated based on factors that are multiplied together (**Table 1**). These factors were based on initial ecological surveys. The surveys were conducted to identify the baseline status of habitats. The factors were also based on provided plans, such as the Landscape Plans (**Appendix A**). These plans have been converted into UKHab classifications. They were also translated into equivalent Statutory Biodiversity Metric habitat categories, referred to as "BNG habitat type." This assessment uses these classifications to predict the Post-Development status of the Landscape Plans.

Habitat Module

2.14. Habitats are measured in area (hectares) and give results in 'Habitat units'. As part of this assessment, Habitats were separated into discrete Parcels either where they were geographically discrete or where there was a change in habitat condition across a single location. Each Parcel was recorded and calculated separately using the Metric calculator. Individual trees are assessed within the Habitat Module, their area assessed using the 'Tree helper' within the Metric.

Hedgerow Module

2.15. Hedgerows (including lines of trees) are measured in length (kilometres) and give results in 'Hedgerow units'. Hedgerows were separated into discrete Parcels either where they were geographically discrete or where there was a change in hedgerow condition across a single location. Each Parcel was recorded and calculated separately using the Metric calculator.

[13] Defra (2024) The Statutory Metric – User Guide.

[14] CIEEM (2021) Biodiversity net gain Report & Audit Templates

[15] For the purposes of this assessment, 'Parcel' refers to any polygon, line or dot as mapped as an individual habitat for BNG assessment.

Watercourse Module

2.16. Watercourses (including culverts) are measured in length (kilometres) and give results in 'Watercourse units'. The River Ehen runs adjacent to the Site (see **Figure 1**). However, for this Site, the red-line boundary was not within 10m of the top of the riparian zone for the River Ehen, or any other watercourses. Therefore, watercourses have not been considered any further with regards to the BNG Assessment and this report.

2.17. **Table 1** defines the methodology for each of the factors assessed within the Metric for the Baseline and also for Post-Development for each Module of the Metric.

Table 1: Methodology for assessing each factor within the Metric for the Baseline and for Post-Development

Factor	Baseline	Post-development
Habitat type	Parcels were recorded and mapped using UK Habitat Classification[16] as part of the PEA and EcIA, see the EcIA for full methodology. See **Figure 2** for on-Site Habitat and Hedgerow Module Baseline BNG mapping.	UKHab types of post-development Parcels were assumed based on Landscape Plans (**Appendix A**), for the Site, which have been converted to UKHab/BNG for the purposes of this assessment. See **Appendix A** for on-Site Habitat and Hedgerow Module Post-Development BNG mapping.
Area/Length	Habitats and Hedgerows were each separated into Parcels either where they were geographically discrete or where there was a change in habitat condition across a single location. Parcels were grouped where their type and condition was the same, within the Metric. Areas were calculated in hectares to two decimal places using digital mapping and measuring tool ArcGIS[17].	
Distinctiveness	Distinctiveness value is automatically generated by the Metric based on habitat type. The overall distinctiveness categories used for habitat areas is shown within the User Guide, habitats will be defined as Very low, Low, Medium, High or Very high.	
Condition	Habitat condition is a score based on the quality of the habitat, judged against the perceived ecological optimum state for that particular habitat. It is, therefore, a means of measuring variation in the quality of patches of the same habitat type rather than a measure of quality between habitat types The 'condition assessment'[18] involves assessing each habitat type / Parcel as per the associated condition sheet, resulting in a condition score (Good, Fairly good, Moderate, Fairly poor, or Poor) which is then input into the Metric. Some intensively managed habitats have a pre-defined condition score; and for other Very low distinctiveness habitats no assessment is required.	
	A condition assessment (**Appendix D**) for Baseline habitats was carried out alongside the EcIA, whereby each habitat Parcel was assessed for its condition.	The condition of Post-Development habitats is predicted based on the Landscape Plans (**Appendix A**), and Planting Schedule (**Appendix E**) for the Site and what is considered realistic, the condition assessment sheets detailing this are shown within **Appendix F**.

[16] UHab Ltd (2023) *UK Habitat Classification Version 2.0 (at http://ukhab.org)*

[17] ESRI. ArcGIS online https://www.arcgis.com/index.html

[18] Defra (2024) Statutory biodiversity metric condition assessments

Factor	Baseline	Post-development
Strategic Significance	The Strategic Significance categories were as follows: 'High' Strategic Significance relates to those habitats 'Formally identified in local strategy'; 'Medium' Strategic Significance relates to those habitats whereby 'Location ecologically desirable but not in local strategy'; and 'Low' Strategic Significance relates to those habitats whereby 'Area/Compensation not in local strategy / no local strategy'. Strategic significance is the local significance of the habitat on its location and habitat type. Where a habitat is listed within a Local Nature Recovery Strategy (LNRS)) it should be rated as 'High'. Currently, Cumberland Council has a LNRS, but this is still undergoing review and development[19] and can therefore not be used to define a high strategic significance. As such a high strategic significance is considered to be habitats that are listed as statutory or non-statutory sites for nature conservation (the latter identified in The Local Plan[20]) or habitats listed in the Cumbria Biodiversity Action Plan (BAP)[21]. Where a habitat has not been listed within an and it is considered to offer particular ecological value in its location, it is classed as 'Medium' based on its ecological value using professional judgement. Any habitat whereby it is not listed within LNRS (or other document in the absence of an LNRS) and is not ecologically valuable can is classed as 'Low'.	
Spatial Risk Category (off-Site only)	N/A	The spatial risk multiplier reflects the relationship between the location of on-Site biodiversity loss and the location of off-Site habitat compensation. The below relates to the Habitat and Hedgerow Modules. 'Within' refers to those off-Site areas which sit within the local planning authority (LPA) boundary or National Character Area (NCA) 'Neighbouring' refers to those off-Site areas which sit outside the LPA or NCA, but within neighbouring LPA or NCA. 'Outside' refers to those off-Site areas which sit outside local or neighbouring LPA or NCA.
Standard Time to Target Condition	N/A	Time to target condition is a standard score automatically generated by the Metric based on how long the habitat type takes to establish. The time period to use is the length of time (in years) between the development and the point in time the habitat reaches the pre-agreed target quality (i.e. distinctiveness, condition, area). This time will vary between habitat types, between change scenarios (e.g. creation typically takes longer than enhancement) and due to the way the habitat is managed.
Difficulty of Creation or	N/A	Habitat creation carries an associated risk based on the difficulty and uncertainty of

[19] Content development | Cumbria Local Nature Recovery Strategy
[20] Copeland Local Plan 2021-2039
[21] Cumbria Biodiversity Action Plan 2001 (as amended 2009)

Factor	Baseline	Post-development
Restoring a Habitat		successfully creating, restoring or enhancing a habitat. A multiplier is therefore applied automatically by the Metric to recognise the difficulty of creating different habitats, detailed in the user guide[5]. Where uncertainties have been identified further work will be required to help give confidence that the habitat creation or restoration will be successful.
Habitat banking and delays in creation/enhancement of habitats	N/A	The Statutory Biodiversity metric enables the recording of habitat creation/enhancement in advance or delayed for all habitats including hedgerows and lines of trees. These either reduce or increase the time to target condition proportionately. It has been assumed that there would be no delay in habitat creation for this BNG i.e. habitats will be created within 1 year of the impact occurring.

2.18. Each of the factors listed in **Table 1** were populated into the Metric for each Parcel to generate a score for BNG as a percentage for each Module of the Metric.

Irreplaceable Habitats

2.19. Impacts on 'irreplaceable' habitats cannot be accounted for through the Metric. They require separate consideration which must comply with relevant policy and legislation. Data relating to these habitats can be entered into the Metric to (i) give an indication of the biodiversity value of the habitats present on a Site (the Baseline), and/or (ii) allow actions to enhance or restore these important habitats to contribute towards the delivery of net gain. The metric can also be used to give an indication of the minimum amount of replacement habitat that should be provided, however, it cannot and should not replace case specific assessments, and bespoke compensation should be agreed upon with the relevant decision maker for any losses or impacts to these habitats. **There were no irreplaceable habitats on Site**.

Trading Rules

2.20. For each habitat lost at the Baseline through the proposed Development, it must be replaced by a 'like-for-like' habitat of the same / higher, broad type / distinctiveness. This is referenced as the 'Trading Rules'. Full description defined within the User Guide. The type of trading depends on the distinctiveness of habitat lost, for example Very low distinctiveness habitat will not require trading, however Very high distinctiveness habitat will require bespoke compensation agreed with relevant authorities, and High distinctiveness habitat must be replaced with habitat of the same distinctiveness or above.

Assumptions

2.21. The wildflower seed mix identified in the Landscape Plan (**Appendix A**) has been categorised as other neutral grassland of moderate condition, if there is a relaxed management plan, to allow for a varied sward height as well as at least 10 or more vascular plant species per square metre and a varied sward height with at least 20% less than 7cm and at least 20% greater than 7cm. To help develop this,

a relaxed management plan should take place, and the habitat should be managed as a wildflower meadow with a specific mowing regime.

2.22. It is assumed that the 15 individual trees which are to be planted in the Landscape Plan (**Appendix A**) will be mostly (>70%) native species and can achieve moderate condition.

3. Baseline Conditions

3.1. The Site was assessed as part of the EcIA whereby all Parcels were recorded following the UKHab Methodology[22]. Information to determine the type, distinctiveness, condition and extent of each Parcel was determined from the results of the EcIA.

3.2. The below results sections should be read in conjunction with the EcIA report and the completed Metric calculators[23].

3.3. The planning boundary was approximately 0.861ha in total. Supporting 1.79 Baseline Habitat units and 0.06 Baseline Hedgerow units.

3.4. To evaluate the strategic importance of both existing baseline habitats and newly created habitats, including on-site habitat and hedgerow creation, a review will be conducted. This will incorporate the Local Nature Recovery Strategy (LNRS) under Cumberland Council's Planning Policy[24]and the Cumbria BAP [25].

On-Site Baseline

3.5. **Table 2** below details the BNG **on-Site Habitat and Hedgerow types and conditions**, full descriptions can be found within the EcIA. It should be noted that no on-Site Parcels are classed as 'Irreplaceable'.

Table 2: Summary of UKHab and BNG Habitat Types Recorded on-Site for each Parcel

Parcel ref.	UKHab Habitat type (level 4/5 code). Priority habitats marked with a 'P'.	BNG Habitat Type	Condition
Habitat Module			
Unit 10 and 14	u1b5 - Buildings	Urban – Developed land; sealed surface	N/A
	u1b6 - Other developed land		
SVL1 & SVL2	u1f – Sparsely vegetated on urban land	Urban – bare ground	Good
T1 – T6	u 200 – Individual tree	Individual tree – Urban	Moderate
MG1 – MG3	g4 – Modified grassland	Grassland – Modified grassland	Moderate
MG4	g4 – Modified grassland	Grassland – Modified grassland	Poor
IS1 – IS5	SC160 – Introduced scrub	Urban – introduced shrub	N/A

[22] UHab Ltd (2023) *UK Habitat Classification Version 2.0 (at http://ukhab.org)*

[23] Waterman IE (2024). Statutory Biodiversity Metric Calculator. Ref: WIE21010-101-XLS-1-1-3-BNG.

[24] Copeland Local Plan (2021-2039)

[25] Cumbria Biodiversity Action Plan 2001 (as amended 2009)

Parcel ref.	UKHab Habitat type (level 4/5 code). Priority habitats marked with a 'P'.	BNG Habitat Type	Condition
BW1	w1g – Other broadleaved woodland	Woodland – Other woodland; broadleaved	Moderate
Hedgerow Module			
LoT1	w1g6 – Line of trees	Hedgerows – Line of trees	Poor

3.6. A summary description of the **on-Site Baseline Parcels** is detailed below. The descriptions should be read in conjunction with **Figure 2** (for on-Site Baseline Habitat and Hedgerow Modules) which depict Parcels. Photographs (plates) of each Parcel as well as the full UKHab code and corresponding BNG habitat type, full description informing condition assessment, and exhaustive species lists for each Parcel, can be found within **Appendix D.**

Urban - Developed land; sealed surface

3.7. 'Developed land; sealed surface' is of 'Very low' distinctiveness and does not require a condition assessment. The habitat type 'Hardstanding and building' does not meet the requirements for high or moderate strategic significance as defined in Table 1 therefore strategic significance is set to 'Low'. This habitat does not require a condition assessment.

Urban – Bare Ground

3.8. 'Bare Ground is of 'Low' distinctiveness. A condition assessment using the 'Urban' condition sheet found that Parcels SV1 and SV2 were in 'Good' condition. The habitat type 'Bare Ground' does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to 'Low'. See **Appendix D** for full baseline condition assessment.

Urban – Introduced Shrub

3.9. 'Introduced Shrub' is of 'Low' distinctiveness. The Habitat type 'Introduced Shrub' does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to 'Low'. Introduced Shrub does not require a condition assessment as part of the Statutory Biodiversity Metric.

Urban – Individual Tree

3.10. 'Urban tree' is of 'Medium' distinctiveness. All individual trees (T1-T6) were assessed as being of small size. A condition assessment using the 'Individual tree' condition sheet found that these were all in 'Moderate' condition. The habitat type 'Urban trees' does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to 'Low'. See **Appendix D** for full condition assessment.

Grassland - Modified grassland

3.11. 'Modified grassland' is a of 'Low' distinctiveness. A condition assessment using the 'Grassland low' condition assessment sheet assessed MG1 to 3 as being in 'Moderate' condition and MG4 as in poor condition. The habitat type 'Modified grassland' does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore and therefore strategic significance is set to 'Low'. See **Appendix D** for full condition assessment.

Hedgerow - Line of trees

3.12. ‘Line of trees’ is of ‘Low’ distinctiveness. A condition assessment using the ‘Line of trees’ condition sheet found that Parcel LoT1 was in ‘Poor’ condition. The habitat type ‘Line of trees’ does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to 'Low'. See **Appendix** D for full condition assessment.

Woodland and forest - Other woodland; broadleaved

3.13. ‘Other woodland; broadleaved’ is of ‘Medium’ distinctiveness. A condition assessment using the ‘Woodland’ condition sheet found that the parcel was in ‘Moderate’ condition. Habitat type (Broadleaved woodland) does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to ‘Low'. See **Appendix D** for full condition assessment.

On-Site Baseline BNG Score

3.14. The information above has been used to calculate a Baseline unit score for the **on-Site Parcels**. Parcels were grouped based on type and condition as described in the methodology, this is defined below.

Habitat Module

3.15. **Table 3** defines the **on-Site Habitat Baseline** score for the Habitat Module. See **Figure 2** for associated mapping.

Table 3: On-Site Habitat Module baseline results

Parcel ref	Habitat Type	Habitat Condition	Distinctiveness	Strategic Significance	Area (ha)	Habitat Units
N/A	Developed land; sealed surface	N/A - Other	Very low	Low	0.323	0.00
B1 and B2	Developed land; sealed surface	N/A - Other	Very low	Low	0.234	0.00
SVL1 & SVL2	Bare ground	Good	Low	Low	0.026	0.16
T1 – T6	Urban tree	Moderate	Medium	Low	0.0244*	0.20
MG1 – MG3	Modified grassland	Moderate	Low	Low	0.119	0.47
MG4	Modified grassland	Poor	Low	Low	0.022	0.04
IS1 – IS5	Introduced Shrub	N/A	Low	Low	0.053	0.11
BW1	Other woodland; broadleaved	Moderate	Medium	Low	0.084	0.67
				Total	**0.862**	**1.65**

*The area of individual trees does not contribute to the total Site area (see Paragraph 3.3), due to the habitat being canopy above habitat below.

Hedgerow Module

3.16. **Table 4** defines the **on-Site Hedgerow Baseline** score for the Hedgerow Module. See **Figure 2** for associated mapping.

Table 4: On-Site Hedgerow Module baseline results

Parcel ref	Hedgerow	Hedgerow Condition	Distinctiveness	Strategic Significance	Length (km)	Total Hedgerow Units
LoT1	Line of trees	Poor	Low	Low	0.03	0.06
				Total	**0.03**	**0.06**

4. Proposed Design

4.1. Post-Development habitats (on-Site) were determined from the Landscape Plan (**Appendix A**), and Plant Schedule (**Appendix E**) which has been converted to UKHabs/BNG habitats for use within the Metric.

4.2. The condition of these proposed habitats has been predicted from the Landscape Plans provided, applying the precautionary principle with the most conservative condition achievable. This is also based on the assumption that a HMMP for a minimum 30-year period will be in provided in line with the Environment Act 2021 and the Planning Policy Guidance (PPG). The full condition assessments for Post-Development habitats can be found in **Appendix F**.

4.3. Unless a habitat is identified as retained, it is assumed to be removed and replaced with either a new habitat or hard surface as per the Landscape Plans. No habitat is deemed 'irreplaceable', and the compensation provided through enhancement and creation meets the requirements for the Metric Trading rules.

On-Site Post-Development Habitats

4.4. A summary description of the **on-Site Post-Development Parcels** is detailed below.

4.5. Conditions assessments for Post-Development habitats (**Appendix F**) were based on the detailed Landscape Plan (**Appendix A**) and plant schedule (**Appendix E**).

4.6. It is assumed that a HMMP will be produced as a pre commencement condition, outlining a 30-year management plan for the habitats created on-Ste to ensure they achieve the target habitat category and condition predicted in this BNG assessment.

Grassland – Other neutral grassland

4.7. The creation of 'Other neutral grassland' is proposed to replace a number of baseline habitats on the Site including a number of introduced shrub and modified grassland habitats, as well as some sparsely vegetated land (see **Appendix E** for planting details). Other neutral grassland is of 'Medium' distinctiveness, and 'Moderate' condition is considered achievable for the created habitat type. This habitat type (Other neutral grassland) does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to 'Low'. See **Appendix F** for full predicted condition assessment.

Grassland – Modified Grassland

4.8. Small areas of turf are to be planted on the Site. As turf is usually single species, it will automatically fail criteria A for the condition assessment and is thus assigned poor condition. This habitat type is of 'Low' distinctiveness and is thus set as being of 'Low' strategic significance. See **Appendix F** for full predicted condition assessment.

Urban – Developed land; sealed surface

4.10. The creation of 'Developed land; sealed surface' is proposed throughout the Site in the form of roads, car parks and an extension connecting Unit 10 and 14 (see **Appendix B** for details). This habitat is of 'Very low' distinctiveness and does not require a condition assessment.

4.11. This habitat type does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore, strategic significance is set to 'Low'.

Urban – Introduced shrub

4.12. The creation of 'Introduced shrub' is proposed to replace the MG3 parcel in the southeast of the Site (see **Appendix A and E** for details). This habitat is of 'Low' distinctiveness and does not require a condition assessment.

4.13. This habitat type is not listed in the Cumberland Council Local Plan or Cumbria BAP, therefore strategic significance is set to 'Low'.

Individual tree – Urban

4.14. The creation of 'Urban trees' were proposed amongst IS2, IS3, IS4 and IS5 parcels on borders of the Site (see **Appendix A and E** for planting details). In total 16 small native and non-native trees have been proposed in the Landscape Plan, and 'Moderate' condition is considered achievable for this created habitat type. Urban trees are 'Medium' distinctiveness. This habitat type (Trees within urban setting) does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to 'Low'. However, a requirement for Individual trees to planted at a 2:1 ratio of trees planted to lost is mentioned in Cumberland Council Planning Policy N14. See **Appendix F** for the full predicted condition assessment.

Woodland and Forest – Other woodland; Broadleaved

4.15. On-Site Baseline Parcel BW1 will be mostly retained as part of the Development ('Moderate' condition). The creation of more other woodland; broadleaved is proposed on Site. 'Other woodland; broadleaved' is a 'Medium' distinctiveness. This habitat type does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to 'Low'. The predicted condition assessment for the new woodland is 'Moderate'. See **Appendix F** for the full predicted condition assessment

Hedgerow – Line of Trees (retained)

4.16. On-Site Baseline Parcel LoT1 will be retained as part of the Development. The condition remains unchanged at 'Poor.

Hedgerow – Species-rich native hedgerow with trees

4.17. A 'species-rich native hedgerow with trees' is proposed to be created along the northern boundary of the Site (see **Appendix A** and **E** for details). The distinctiveness for this habitat is 'High' and the condition assessment is assumed to be 'Moderate'. This habitat type does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to 'Low'. See **Appendix F** for the full predicted condition assessment.

Hedgerow – Non-native and ornamental hedgerow

4.18. The creation of 'Non-native and ornamental hedgerow' is proposed to the east of the Site (see **Appendix A** and **E** for details). 'Non-native and ornamental hedgerow' is of 'Very low' distinctiveness,

and condition is fixed at 'Poor'. ‘This habitat type (non-native ornamental hedgerow) does not meet the requirements for high or moderate strategic significance as defined in Table 1, therefore strategic significance is set to ‘Low’.

5. Good Practice Principles for Development

5.1. This report has considered the ten BNG good practice principles (**Appendix C** for a breakdown of Good Practice Principles for Development) which have been applied to this assessment. Examples of how these Principles have been met is also evidenced in **Appendix C**.

6. BNG Metric

6.1. The BNG metric results should be read in conjunction with the following information:

- **Figure 2:** On-Site Habitat and Hedgerow Module Baseline BNG mapping;
- Biodiversity Metrics calculator spreadsheets[26];
- The condition assessment sheets for Baseline Parcels within **Appendix D**;
- The condition assessment sheets for Post-Development Parcels within **Appendix F**;

On-Site Metric

6.2. The following section defines the **on-Site Habitats and Hedgerows** assessed within the Metric.

Habitat Module

6.3. This section defines the **on-Site Habitats** assessed within the Metric.

Habitat Loss

6.4. **Table 5** details **on-Site Habitat units lost** by the Development (only includes those habitats which have areas lost). See **Figure 2** for baseline habitat maps and Appendix A for Post-Development Landscape Plans.

Table 5: On-Site Habitat losses result

Parcel ref	Habitat Type	Habitat Condition	Area lost (ha)	Habitat Units lost
Unit 10 and Unit 14	Developed land; sealed surface	N/A - Other	0.00*	0.00
N/A	Developed land; sealed surface	N/A – Other	0.03	0.00
SVL1 & SVL2	Bare Ground	Good	0.03*	0.16
T1 - T6	Urban tree	Moderate	0.01	0.06
MG1 – MG3	Modified grassland	Moderate	0.119	0.47
MG4	Modified grassland	Poor	0.022	0.04
IS1 – IS5	Introduced Shrub	N/A	0.031*	0.06
BW1	Other woodland; broadleaved	Moderate	0.01	0.05
		Total	**0.24***	**0.85**

*The Metric automatically reduces the number of decimal places to 2dp, included here for consistency.

**The area of individual trees does not contribute to the total Site area (see Paragraph 3.3), due to the habitat being canopy above habitat below.

Habitat Retention

6.5. **Table 6** details **on-Site Habitat units retained** by the Development. See **Figure 2** for associated

[26] Waterman IE (2024). Statutory Biodiversity Metric Calculator. Ref: WIE21010-101-XLS-1-1-3-BNG

mapping.

Table 6: On-Site Habitat retention result

Parcel ref	Habitat Type	Habitat Condition	Area retained (ha)	Habitat Units retained
Unit 10 and Unit 14	Developed land; building	N/A - Other	0.293*	0.00
N/A	Developed land; sealed surface	N/A – Other	0.234	0.00
T1, T2, T3 and T4	Urban tree	Moderate	0.016*	0.13
IS4	Introduced Shrub	N/A	0.022	0.04
BW1	Other woodland; broadleaved	Moderate	0.078	0.62
		Total	**0.64***	**0.80**

*The Metric automatically reduces the number of decimal places to 2dp, included here for consistency.

**Individual Trees are given an area as part of the metric, however, this does not contribute to the total area on-Site.

Habitat Creation

6.6. **Table 7** details the **on-Site Habitat** units delivered by **creation**. See **Appendix A** for associated Landscape Plans.

Table 7: On-Site Habitat creation results

Habitat Type	Habitat Condition	Distinctiveness	Strategic Significance	Area created (ha)	Habitat Units delivered
Developed land; sealed surface	N/A	V. Low	Low	0.061	0.00
Other woodland; broadleaved	Moderate	Medium	Low	0.0206	0.10
Introduced shrub	N/A - Other	Low	Low	0.0086*	0.02
Modified grassland	Poor	Low	Low	0.0138*	0.03
Other neutral grassland	Moderate	Medium	Low	0.1206*	0.81
Urban tree	Moderate	Medium	Low	0.0651**	0.20
			Total	**0.29**	**1.15**

*The Metric automatically reduces the number of decimal places to 2dp, included here for consistency.

**Individual Trees are given an area as part of the metric, however, this does not contribute to the total area on-Site.

Hedgerow Module

6.7. This section defines the **on-Site Hedgerows** assessed within the Metric.

Hedgerow Loss

6.8. No **on-Site Hedgerow** is to be **lost** through the Development.

Hedgerow Retention

6.9. **Table 8** details **on-Site Hedgerow units retained** by the Development. See **Figure 2** for associated mapping.

Table 8: On-Site Hedgerow retention results

Parcel ref	Hedgerow Type	Hedgerow Condition	Length retained (km)	Hedgerow Units retained
LoT1	Line of trees	Poor	0.03	0.06
		Total	**0.03**	**0.06**

Hedgerow Enhancement

6.10. No **on-Site Hedgerow** is to be **enhanced** through the Development.

Hedgerow Creation

6.11. **Table 9** details the **on-Site Hedgerow** units delivered by **creation**. See **Appendix A** for associated Landscape Plans.

Table 9: On-Site Hedgerow creation results

Hedgerow Type	Hedgerow Condition	Distinctiveness	Strategic Significance	Length created (km)	Hedgerow Units delivered
Non-native and ornamental hedgerow	Poor	Very low	Low	0.012	0.01
Species-rich native hedgerow with trees	Moderate	High	Low	0.053	0.45
			Total	**0.065**	**0.46**

Trading Rules

6.12. The trading rules associated with a design stage BNG assessment have been met for all Parcels lost at the Baseline, with those of low distinctiveness being traded with Parcels of the same or higher distinctiveness; and medium distinctiveness Parcels being traded with those of the same broad habitat or those of a higher distinctiveness.

7. Summary and Conclusion

7.1. The Site is predicted to result in the following BNG:

- On-Site net change of 0.30 Habitat units (+17.95%) and 0.46 on-Site Hedgerow units (+761.6%).

7.2. A full BNG Statutory Metric calculation[27] is presented in **Appendix G**.

7.3. This is in line with the statutory requirements of a minimum of 10% BNG and meets trading rules.

7.4. A requirement of Cumberland Council Planning Policy denotes a requirement of a 2:1 ratio of trees planted to lost is mentioned in policy N14. The Proposed Development achieves a ratio greater than this with two trees being lost and 16 being planted.

7.5. This document identifies predicted units that can be delivered through creating and enhancing habitats to particular categories and condition. A BNG Audit would be required to confirm that these predictions have been met. It is expected that such monitoring visits this would form part of the HMMP which would also identify remedial action, if required, to deliver the committed units. It is expected that an HMMP will be a pre commencement condition.

[27] Waterman IE (2024). Statutory Biodiversity Metric Calculator. Ref: WIE21010-101-XLS-1-1-4-BNG.

FIGURES

Site Location

N

0 50 100 200 300 400 500 m

Project Details	WIE21010-100: Bridge End
Figure Title	Figure 1: Site Location Plan
Figure Ref	21010100-WAT-XX-XX-GS-N-750001
Date	December 2024
File Location	N:\Projects\WIE21010-100\9_GIS\21010100-WAT-XX-XX-GS-N-75

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Esri Community Maps Contributors, Esri UK, Esri, TomTom, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS, Maxar, Microsoft

waterman

- Site Boundary (0.861Ha)
- g4 - Modified grassland (0.141Ha)
- u1b - Developed land; sealed surface (0.323Ha)
- u1b5 - Buildings (0.234Ha)
- u1f - Sparsely vegetated land (0.026Ha)
- w1h5 - Other woodland; mixed; mainly broadleaved (0.084Ha)
- SC160 - Introduced Shrub (0.053Ha)
- w33 - Line of trees (0.030km)
- Urban Tree (6 No.)

N

0 5 10 20 30 m

Project Details	WIE21010-100: Bridge End
Figure Title	Figure 2: Baseline Habitat Feature Plan
Figure Ref	21010100-WAT-XX-XX-GS-N-750007
Date	December 2024
File Location	N:\Projects\WIE21010-100\9_GIS\21010100-WAT-XX-XX-GS-N-75

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APPENDICES

A. Landscape Plans

NATIVE TREES AND SHRUBS- WOODLAND MARGIN 260 sq.m. 130 0.5/ sq.m.

Plant name	Common name	% in mix	Number	Specification
Crataegus monogyna	Hawthorn	20%	26	40/60cm bare root
Corylus avellana	Hazel	20%	26	40/60cm bare root
Prunus spinosa	Blackthorn	10%	13	40/60cm bare root
Ilex aquifolium	Holly	10%	13	30/40cm in C2 container
Acer campestre	Field Maple	5%	7	40/60cm bare root
Sorbus aucuparia	Rowan	5%	7	40/60cm bare root
Prunus padus	Bird Cherry	5%	7	40/60cm bare root
Sambucus nigra	Elder	5%	7	40/60cm bare root
Viburnum opulus	Geulder Rose	5%	6	40/60cm bare root
Malus sylvestris	Crab Apple	5%	6	40/60cm bare root
Rosa canina	Dog Rose	5%	6	40/60cm bare root
Cytisus scoparius	Broom	5%	6	30/40cm in C2 container

NATIVE TREES			Number	
Alnus glutinosa	Alder	AG	5	2-2.5m bare root
Quercus petraea	Sessile Oak	QP	5	2-2.5m bare root
Betula pendula	Silver Birch	BP	2	8-10cm rootballed
Sorbus aucuparia	Rowan	SA	2	2-2.5m bare root
Pinus sylvestris	Scots Pine	PS	2	40-60cm C5
Crataegus monogyna	Hawthorn	CM	1	2-2.5m bare root
Prunus padus	Bird Cherry	PP	4	2-2.5m bare root
Prunus avium	Gean	PA	2	2-2.5m bare root
Acer campestre	Field Maple	AC	5	2-2.5m bare root
			28	

NATIVE HEDGE	**NBH**	53m	212 plants	4/ lin.m.	
Crataegus monogyna	Hawthorn	55%	117	40/60cm bare root
Corylus avellana	Hazel (note extra 130 shrub layer)	10%	21	40/60cm bare root
Ilex aquifolium	Holly	10%	21	30/40cm in C2 container
Prunus spinosa	Blackthorn	5%	11	40/60cm bare root
Acer campestre	Field Maple	5%	11	40/60cm bare root
Sambucus nigra	Elder	5%	10	40/60cm bare root
Viburnum opulus	Geulder Rose	5%	10	40/60cm bare root
Rosa canina	Dog Rose	3%	6	40/60cm bare root
Lonicera periclymenum	Holly	2%	5	30/40cm in C2 container

TREES			
Acer platanoides Drummondii	AD	1	8-10cm rootballed
Prunus subhirtella Autumnalis	PSA	1	8-10cm rootballed
Prunus Pink Perfection	PPP	1	8-10cm rootballed
Sorbus Asplenifolia	SAS	3	8-10cm rootballed
Sorbus Embley	SE	3	8-10cm rootballed
TOTAL TREES		**9**	

SPECIMEN SHRUBS			
Amelanchia lamarckii	AL	2	C10 80-90cm
Mahonia Charity	MC	1	C10 60-80cm
Phormium Sundowner	PS	2	C10 60-80cm
Photinia Red Robin	PR	1	C10 60-80cm
TOTAL SPECIMENS		**6**	

SHRUBS		86 sq.m.		No/ sq.m.
Bergenia cordifolia	Bc	20-30cm	CG 2 litre	5
Cotoneaster Skogholm Coral Beauty	Cc	20-30cm	CG 2 litre	3
Euonymus Emerald Gaiety	Ee	20-30cm	CG 2 litre	3
Hebe Sutherlandii	Hs	20-30cm	CG 2 litre	4
Hebe Autumn Glory	Ha	20-30cm	CG 2 litre	3
Hebe Midsummer Beauty	Hm	20-30cm	CG 2 litre	3
Hypericum calicynum	Hc	20-30cm	CG 2 litre	4
Lonicera pileata Maigreen	Lm	30-45cm	CG 2 litre	2
Potentilla Elizabeth	Pe	20-30cm	CG 2 litre	3
Senecio Sunshine	Ss	20-30cm	CG 2 litre	3
Vinca minor	Vm	20-30cm	CG 2 litre	5

HEDGE	12m	48 plants	No/ lin.m.
Hebe Blue Gem	40-50cm in C5 container		4

BULBS		**Number**
Narcissus King Alfred or similar	N	700

TOPSOIL CULTIVATION In accordance with BS 3882. Apply glyphosate herbicide prior cultivation and allow the recommended period before further action. Ensure ground is free draining by breaking up subsoil and installation of land drainage as required. Do not work the soil in frozen or waterlogged condition. Remove any debris and stones greater than 50mm from surface and cultivate to suitable tilth for planting. Rake surface to achieve required level flush with adjacent paving for turf and 50mm below for planting to allow for mulch layer and smooth flowing contours for open space areas without hollows or soft areas. Topsoil depths to be minimum 150mm for grass and 450mm for planting and at least 300mm of suitable subsoil beneath the topsoil layer. Site topsoil to be supplemented with imported topsoil in accordance with BS 3882. Shrub beds in grass areas to be neatly cut to layout shown.

PLANTING Plant material shall conform to the National Plant Specification and be healthy, vigorous specimens, well rooted but not pot bound, free from pests and disease, hardy and undamaged by transport operations in accordance with HTA 'handling and establishing landscape plants'. Planting and turfing to be in accordance with BS 3936 and 4428. Plant species substitutes will be permitted to accommodate availability and to include stock of particular good quality in nursery provided these are of a similar habit, size, colour, value etc and that they are **approved in advance** by the Landscape Architect. Native species to be local provenance. Bare root and rootballed plants to be planted between November and March. Backfill of planting holes and tree pits to be excavated topsoil with 25% by volume tree and shrub planting compost. Shrub pits to be generally 300 x 300 x 300mm or 75mm wider and deeper than the root spread. Tree pits to be 900 x 900 x 600mm or 150mm wider than the root spread. Stakes to be two 75mm diameter pointed stakes driven until firm and trimmed to 900mm above G.L. with 50 x 100mm crossbar screwed to stakes. Rubber tree cushion nailed to crossbar and rubber tree belting nailed to secure tree. Single 75mm diameter stake for bare-rooted trees with rubber tree belting with spacer. Apply slow release fertiliser (16:10:10) at rate of 100g/ sq.m. to planting areas and 250g per tree. Thoroughly water planting.

PLANTING DENSITIES/ SETTING OUT Refer to the Planting Schedule for densities. Where a bed is indicated as mixed species on the plan, the area should be divided equally between the species shown and the relevant density for that species applied to that proportion of the bed. Taller species to the rear of the bed and smaller species to the front planted in bold groups of single species and not mixtures unless clearly requested on the plan annotations.

TREE RABBIT GUARDS If rabbit activity is noted in the area and guarding is authorised each bare-rooted native plant hedge plant to receive a 12/14 weight 900mm cane and 60cm clear spiral guard. Trees to receive 90cm spiral guard. If extensive rabbit activity is observed rabbit fencing to ornamental areas will be required as directed by the Landscape Architect.

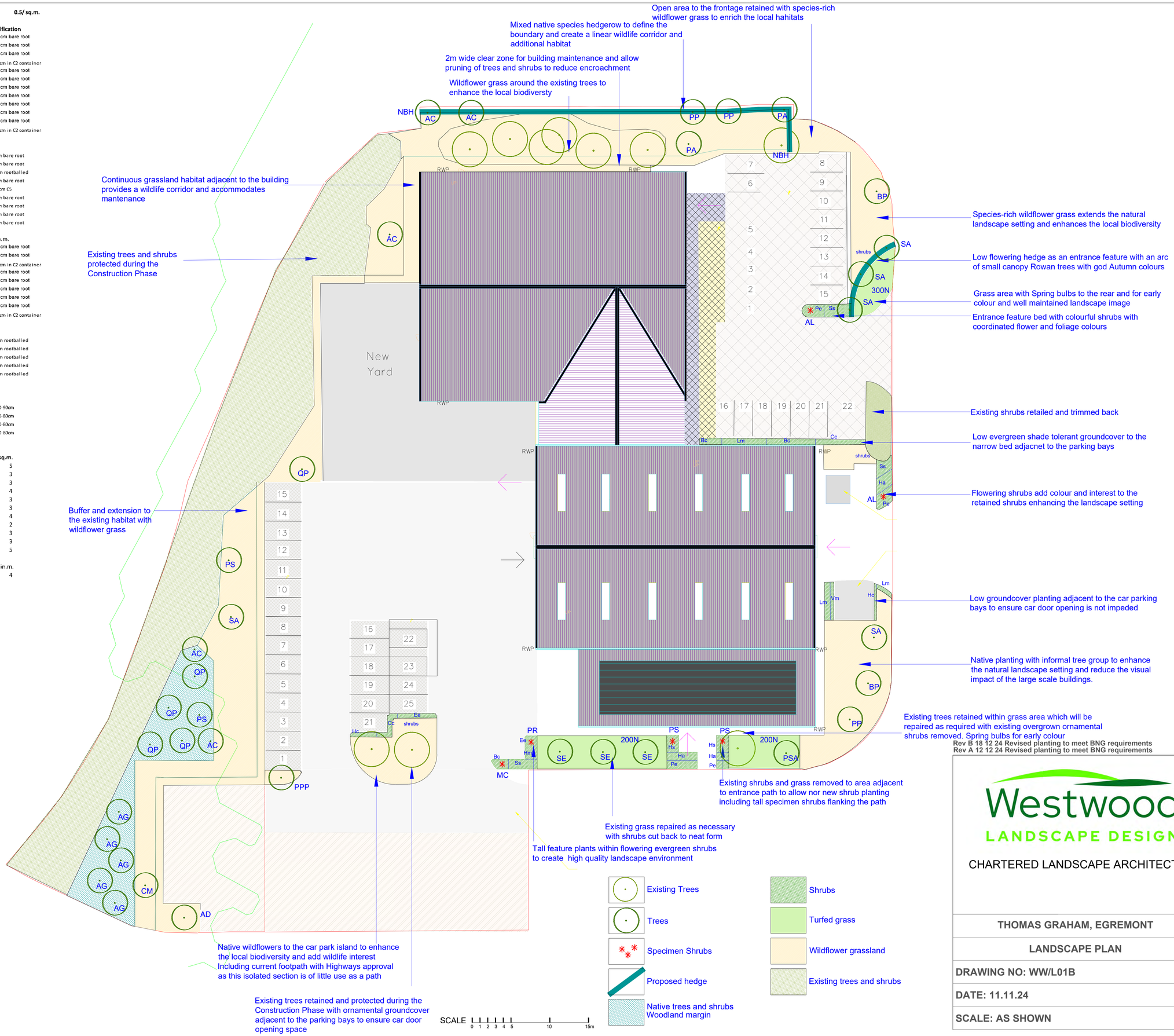
MULCH Spread 50mm layer of general purpose bark mulch, free from large sticks, and debris over all shrub areas, 800mm wide strips for hedging and 800mm diameter circles for tree pits in grass with neatly trimmed edge.

TURFING Following cultivation preparation specified above supply and lay Rolawn Hallstone turf or similar approved with staggered joints close butted to uniform levels to finish 25mm above adjacent paving levels once well tamped down. Use sharp sand spread on surface to achieve fine tuning of levels. Thoroughly soak turf on completion and ensure regular watering is arranged until the turf has rooted. Do not turf in waterlogged or frozen conditions.

SEEDING AMENITY GRASS Following cultivation preparation specified above apply Boston Seeds Low maintenance amenity mix or similar approved at a rate of 35gms/ sq.m. and roll with quad or hand drawn ballast grass roller. Apply water with sprinkler hose in dry conditions to ensure germination. Levels to be flush with adjacent paving following firming and settlement of topsoil. Further stone-picking, top-dressing and re-seeding of bare patches to ensure uniform, level grass is established. Re-roll as required at first cut stage.

SEEDING WILDFLOWER GRASS Prepare as for amenity grass and sow 3-5 g/ sq.m. of mix EM3 to the open aspect areas and mix EG9 to the shady areas beneath and close to trees supplied by Emorgate Seeds and applied in accordance with their recommendations.

LANDSCAPE MAINTENANCE. Any plants which fail within 5 years to be replaced in the season following failure to the original specification. Check and adjust stakes and ties every month, and remove stakes in year 5 when trees are suitably stable. Prune trees and shrubs once each year - formative prune to encourage good habit. Apply fertiliser once in Spring each year to grass 40gms/ sq.m. Apply fertiliser once in Spring each year to shrubs 20gms/ sq.m - Osmocote slow release. Top up bark mulch to 50mm depth annually. Check for pests and diseases - treat as required. Water as required all landscape areas. Mow grass 18 times annually and remove arisings, trim edges. Apply selective herbicide and moss killer to grass as required. Re-seed, top dress and aerate lawns as required to maintain grass in good condition. Cut and rake off wildflower grass twice annually. Collect litter from all landscape areas monthly. Apply Glyphosate herbicide to hard paved areas as required.



Rev B 18 12 24 Revised planting to meet BNG requirements BW
Rev A 12 12 24 Revised planting to meet BNG requirements BW

Westwood
LANDSCAPE DESIGN
CHARTERED LANDSCAPE ARCHITECTS

THOMAS GRAHAM, EGREMONT

LANDSCAPE PLAN

DRAWING NO: WW/L01B

DATE: 11.11.24

SCALE: AS SHOWN

B. Legislation and Planning Policy relevant to BNG

Planning Policy

National Planning Policy

National Planning Policy Framework, 2024

The National Planning Policy Framework (NPPF) was published in 2012 and last updated in December 2024[28]. Section 15 (outlined below) of the NPPF, 'Conserving and Enhancing the Natural Environment', is of relevance to this report. No significant changes to Section 15 are noted between the 2021[29] and 2023 update. The Government Circular 06/2005[30] - Biodiversity and Geological Conservation: Statutory Obligations and Their Impact within the Planning System, remains valid and is still referenced within the NPPF.

The NPPF encourages the planning system to contribute to and enhance the natural and local environment. This should be achieved 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 and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;
- 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".

The NPPF also stipulates that Local Planning Authorities (LPAs), when determining planning applications, should apply 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;

[28] Department for Levelling Up, Housing and Communities (2024): National Planning Policy Framework
[29] Ministry of Housing, Communities and Local Government. (2021): National Planning Policy Framework
[30] Department of Communities and Local Government (2005): Circular 06/05: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.

- 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, 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."

National Planning Practice Guidance, 2024

The Government's National Planning Practice Guidance (NPPG)31 is intended to provide guidance to local planning authorities and developers on the implementation of the planning policies set out within the NPPF. The guidance of most relevance to ecology and biodiversity is the Natural Environment Chapter (published 2019), which explains key issues in implementing policy to protect biodiversity, including local requirements

Local Planning Policy

Cumberland Council Planning Policy [31]

The policies relevant to this report are as follows:

Policy ST1 – Strategic Development Principles

Encourage development that minimises carbon emissions, maximises energy efficiency and helps us to adapt to the effects of climate change

Policy ER2 – Planning for the Renewable Energy Sector

The council will support new renewable energy generation proposals which best maximise renewable resources and minimise environmental and amenity impacts.

Policy ER3 – The Support Infrastructure for the Energy Coast

A Ensure that any new energy transmission infrastructure minimises potential impacts on the Borough's landscape and natural environment, and on the health and amenity of its residents and visitors

Policy SS5 – Provision and Access to Open Space and Green Infrastructure

Adequate provision and access to open space, and the development of the Borough's green infrastructure, will be promoted by:

A Protecting against the loss of designated open space (including playing fields, play areas and allotments) within settlements, and of the access routes or wildlife corridors which connect them, whilst ensuring also that they are well maintained. Where it is necessary to build on land covered by this policy, equivalent replacement provision should be mad

Policy ENV1 – Flood Risk and Risk Management

The Council will ensure that development in the Borough is not prejudiced by flood risk through:

C Ensuring that new development does not contribute to increased surface water run-off through measures such as Sustainable Drainage Systems, where these are practical. Where they are not this should be achieved by improvements to drainage capacity

[31] *Copeland Local Plan (2021-2039)*

Policy ENV2 – Coastal Management

To reinforce the Coastal Zone's assets and opportunities the Council will:

D - Support energy generating developments that require a coastal location along the undeveloped coast, provided that the potential impacts on biodiversity, landscape and heritage assets are carefully assessed against the benefits. Where negative impacts are likely these must be mitigated against and compensated for.

Policy ENV3 – Biodiversity and Geodiversity

The Council will contribute to the implementation of the UK and Cumbria Biodiversity Action Plan within the plan area by seeking to:

A Improve the condition of internationally, nationally and locally designated sites

B Ensure that development incorporates measures to protect and enhance any biodiversity interest

C Enhance, extend and restore priority habitats and look for opportunities to create new habitat

D Protect and strengthen populations of priority or other protected species

E Boost the biodiversity value of existing wildlife corridors and create new corridors, and stepping stones that connect them, to develop a functional Ecological Network

F Restrict access and usage where appropriate and necessary in order to conserve an area's biodiversity value

The Core Strategy Copeland Local Plan 2013-2028: Adopted Core Strategy and Development Management Policies Page 71 Policy DM25 supports this policy, setting out the detailed approach towards managing development proposals that are likely to have an effect on nature conservation sites, habitats and protected species.

Local Plan 2021 – 2039

Strategic Policy N1: Conserving and Enhancing Biodiversity and Geodiversity

The Council supports the identification and implementation of Local Nature Recovery Networks that extend beyond Copeland's boundaries, facilitating important wildlife linkages within and outside the borough. Development proposals that protect or enhance these networks will be supported in principle.

Strategic Policy N3: Biodiversity Net Gain

All developments, except those exempt under the Environment Act, must achieve a minimum of 10% biodiversity net gain above the existing site levels, following the mitigation hierarchy in Policy N1. Preference is given to delivering net gain on-site, but if this isn't possible, alternatives are:

1. Off site in an area identified as a Local Nature Recovery Network in the Plan area;
2. Off site on an alternative suitable site within Cumberland ;
3. Off-site on an alternative suitable site;
4. Through the purchase of off-site biodiversity units on the market;
5. Through the purchase of an appropriate amount of national biodiversity credits

A Biodiversity Gain Plan must accompany planning applications, detailing the biodiversity value before and after development, mitigation steps, and how gains will be achieved. Sites must be managed and monitored for 30 years, with annual reports submitted to the council. Deliberate habitat degradation will not reduce the site's ecological assessment, and historical ecological data will be used to evaluate proposals.

Strategic Policy N6: Landscape Protection

The policy protects and enhances the borough's landscapes by supporting appropriate development that conserves distinctive local characteristics. Developments near the Lake District National Park and Heritage Coast must conserve natural beauty and cultural heritage. A Landscape Appraisal or Impact Assessment is required for projects affecting landscape character. Proposals are evaluated on visual impact, scale, and local distinctiveness, considering cumulative effects, with mitigation required where harm occurs.

Strategic Policy N9: Green Infrastructure Summary

A high-quality green infrastructure network will be established through a Green Infrastructure Strategy, connecting towns, villages, rural areas, and the coastline. This network will include various types of green spaces like countryside, rivers, woodlands, and private gardens. Developers are encouraged to maximize green infrastructure, create new connections, expand networks, and enhance existing areas to support wildlife movement. Green infrastructure should be multi-functional and integrated from the beginning of the design process.

Policy N14: Woodlands, Trees, and Hedgerows Summary

Existing trees and hedgerows that enhance visual amenity and environmental value will be protected. Developers should incorporate tree planting and hedgerows in new projects. Development affecting trees must include an **arboriculture assessment** to determine if trees should be protected by a Tree Preservation Order and must replace any removed trees at **a minimum 2:1 ratio** using native species where possible. Tree works in conservation areas or involving protected trees require justification. Loss or damage to ancient woodland or veteran trees is only permitted for **exceptional reasons** with a compensation strategy in place.

Biodiversity and planning Guidance for new Developments Supplementary Planning Document 2023 (adopted 2023)

The SPD provides detail on how biodiversity will be integrated into the Development process to ensure that legislation, policy, and best practice standards are met. It identifies and describes when and where biodiversity will need to be protected by the planning system; clearly sets out when to survey, what to survey for and how surveys should be conducted; it guides applicants through the Biodiversity Mitigation Hierarchy of Avoid, Mitigate, Compensate; and sets out how a measurable net gain to South Gloucestershire’s biodiversity will be achieved. It also introduces the South Gloucestershire Nature Recovery Network (and supporting Local Nature Recovery Strategy) and the Great Crested Newt District Licencing Scheme.

Local Biodiversity Action Plan

At a local level, the Site is covered by the Cumbria Biodiversity Action Plan 2001 (amended 2009).

This contained a Habitats Action Plan, which identified six broad habitat types, with 18 total habitats of focus. No habitats were relevant to the Site. The Cumbria Biodiversity Action Plan does not contain a specific document for habitats of principle importance. This document does include Species Action Plans, with reference to a number of species. Of species noted as potential to be impacted by the site, the only relevant species was bats. For these species, the relevant habitats mentioned in the habitat action plans includes no habitats which are present on site or are proposed as part of the development.

Legislation

Specific habitats and species receive legal protection in England under various pieces of legislation, including:

- The Environment Act 2021[32]
- The Conservation of Habitats and Species Regulations 2017 (as amended)[33];
- The Wildlife and Countryside Act (WCA) 1981 (as amended)[34];
- The Natural Environment and Rural Communities Act 2006[35];
- The Protection of Badgers Act 1992[36]
- Wild Mammals (Protection) Act 1996[37]

Further details of legislation in respect of legally protected and notable fauna of relevance to the Site are provided below;

Environment Act 2021 and Mandatory Net Gain

The Environment Bill was given Royal Assent in November 2021 and is now the Environment Act 2021. The Act includes a target to halt the decline of nature by 2030 and to strengthen the existing biodiversity duty through the introduction of a mandatory requirement to achieve at least 10% biodiversity net gain (BNG) for new developments in England. These requirements commenced on 12th February 2024. The BNG requirement is framed as a pre-commencement condition and that BNG information will need to be provided by the applicant as part of the planning application submission.

The act is supported by secondary legislation comprising six statutory instruments:

- The Biodiversity Gain (Town and Country Planning) (Consequential Amendments) Regulations 2024;
- The Biodiversity Gain Site Register (Financial Penalties and Fees) Regulations 2024;
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024;
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024;
- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024; and,
- The Biodiversity Gain Site Register Regulations 2024.

NERC Act (2006)

Habitats and species listed under S41 of the NERC Act are considered to be habitats and species of Principal importance. All public bodies have a legal obligation or 'biodiversity duty' under Section 40 of the NERC Act 2006 to conserve biodiversity by having particular regard to those species and habitats listed under S41.

[32] HMSO (2021) The Environment Act. Schedule 7A
[33] HMSO (2019) The Conservation of Habitats and Species Regulations 2017 (as amended)
[34] HMSO (1981) 'Wildlife and Countryside Act 1981 (as amended)'
[35] ODPM (2006) 'Natural Environment and Rural Communities Act (2006)'
[36] ODPM (1992) 'The Protection of Badgers Act'
[37] HMSO. (1996). *Wild Mammals (Protection) Act*.

C. BNG Good Practice Principles

This report has considered the ten BNG good practice principles. The table below details how the Development provides due respect to each of the principles.

BNG Good Practice Principles

Principle	Definition	Evidence
Principle 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.	The Site has been fully assessed for its ecological value and is presented in the EcIA report[38]. Given the location of the habitats on Site, their removal is required to facilitate the Development, and therefore it is not possible to avoid or reduce impacts upon these habitats. However, in line with the mitigation hierarchy the loss of these habitats is to be compensated for as part of the scheme design.
Principle 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.	As part of the Landscape Plans (**Appendix A**),habitats lost are being replaced by habitats of the same distinctiveness or higher. Current Landscape Plans are predicted to achieve a net gain 12.80% and 430.75% for area and linear habitats and satisfies the trading rules.
Principle 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.	The Landscape Plans have been created in line with increasing the biodiversity value of the Site.
Principle 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.	A review of the Landscape Plans took place as part of this assessment including recommendations which were made incorporated to deliver the necessary BNG requirements and meet trading requirements.
Principle 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.	A measurable, overall gain for biodiversity has been calculated. This has been achieved through the use of the Statutory Metric, UKHab classification system and ArcGIS to calculate the biodiversity units.
Principle 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	There has been ecological input into the design of the Landscape Plans. The Landscape Plans have been reviewed as part of this assessment. There is compensation for the loss of existing habitats through the creation of areas of habitat of the same distinctiveness or higher.

[38] Waterman IE (2024) Ecological Impact Assessment ref: WIE18818-104-R-1-2-3-EcIA

Principle	Definition	Evidence
	location and timing of biodiversity losses • 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	
Principle 7. Be additional	Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway).	A predicted Net Gain has been calculated.
Principle 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; and • Supporting local-level management of Net Gain activities	It is expected that a HMMP will be produced as a pre-commencement condition, outlining a 30-year management plan for the habitats created on-Ste to ensure they achieve the target habitat category and condition predicted in this BNG assessment.
Principle 9. Optimise sustainability	Prioritise Biodiversity Net Gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy.	BNG has been a priority through early completion of a PEA, with recommendations made incorporated into the design and through collaboration with the ecologist and landscape architect to create a Landscape Plan that provides BNG. The habitats are conducive to the proposed use of the site.
Principle 10. Be transparent	Communicate all Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders.	The details of the BNG calculations and methodologies for how these have been undertaken are present within this report and the full completed Metric can be provided on request.

D. Baseline Condition Assessment

Site ID(s): Bridge End				
Local Planning Authority: Copeland County Council	**Site Name:** Bridge End	**Site ha:** 0.86	**Survey Date:** 28/08/2024	**Baseline Habitat Units: 1.65**
National Character Area: NCA 7 – West Cumbria Coastal Plain	**Grid Reference:** NY 01328 10105	**Habitat Type(s):** Modified grassland (g4) with ruderal (secondary code 81), introduced shrub (Secondary Code; SC 843); other broadleaved woodland (w1g), developed land; sealed surface (u1b), sparsely vegetated urban land (u1f) individual urban trees (SC 34), and a line of trees (SC 33).		**Baseline Hedgerow Units: 0.06**

Baseline Habitat Description:

The majority of the Site consisted of urban habitats, predominantly developed land sealed surface, or buildings. The site hosted a six different area habitats; five areas of introduced shrub, four areas of modified grassland one of which is dominated by tall ruderals (secondary code 81), two areas of sparsely vegetated land an area of broadleaved woodland and are present on site amongst developed land and buildings. A line of trees was present to the north of the site consisting of hornbeam, birch, elder and ash. The broadleaved woodland to the west of the Site consisted of hornbeam, birch, elder, alder, ash, sycamore, white poplar *Populus alba*, and cherry species.
The surrounding habitat beyond the site boundary consisted of access roads to the other areas of the industrial estate, the River Ehen is ~12m west of the Site, and broadleaved woodland, which is connected to the woodland on-site to the west.

Ecological Constraints:
Himalayan cotoneaster was identified in a number of locations on site and Himalayan balsam was identified ~10m west of site. Both of which are Schedule 9 species of the Wildlife and Countryside Act 1981. Therefore, it is illegal to disturb or cause the spread of these species.

Supporting Documents: Figures 5 and 6

Strategic Significance	The site falls within the area for Cumbria Local Nature Recovery Strategy (LNRS. This is a formally recognised LNRS but is still undergoing review and development). None of the habitats within the site are formally recognised within the LNRS.

Urban Tree Condition Assessment		
Criteria	**Condition Assessment**	**Pass / Fail**
Criteria A – The tree is a native species (or at least 70% within the block are native species).	**Tree 1, Scots Pine:** The tree is Scots pine *Pinus sylvestris* and therefore native.	**Pass**
	Tree 2 Rowan: The tree is rowan *Sorbus aucuparia* and therefore native	**Pass**
	Tree 3 Rowan: The tree is rowan *Sorbus aucuparia* and therefore native	**Pass**
	Tree 4 Rowan: The tree is rowan *Sorbus aucuparia* and therefore native	**Pass**
	Tree 5 Alder: The tree is alder *Alnus glutinosa* and therefore native	**Pass**
	Tree 6 Alder: The tree is alder *Alnus glutinosa* and therefore native	**Pass**
Criteria B – The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	**Tree 1:** As this is an individual tree, this criterion is automatically passed as per the condition criteria requirements.	**Pass**
	Tree 2: As this is an individual tree, this criterion is automatically passed as per the condition criteria requirements.	**Pass**
	Tree 3: As this is an individual tree, this criterion is automatically passed as per the condition criteria requirements.	**Pass**
	Tree 4: As this is an individual tree, this criterion is automatically passed as per the condition criteria requirements.	**Pass**
	Tree 5: As this is an individual tree, this criterion is automatically passed as per the condition criteria requirements.	**Pass**
	Tree 6: As this is an individual tree, this criterion is automatically passed as per the condition criteria requirements.	**Pass**
Criteria C – The tree is mature (or more than 50% within the block are mature)	**Tree 1:** The tree is semi-mature	**Fail**
	Tree 2: The tree is young	**Fail**
	Tree 3: The tree is young	**Fail**
	Tree 4: The tree is young	**Fail**
	Tree 5: The tree is semi-mature	**Fail**
	Tree 6: The tree is semi-mature	**Fail**
Criteria D – There is little or no evidence of an adverse impact on tree health by human activities. And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	**Tree 1:** There was no evidence of adverse effects on tree health by human activities.	**Pass**
	Tree 2: There was no evidence of adverse effects on tree health by human activities.	**Pass**
	Tree 3: There was no evidence of adverse effects on tree health by human activities.	**Pass**
	Tree 4: There was no evidence of adverse effects on tree health by human activities.	**Pass**
	Tree 5: There was no evidence of adverse effects on tree health by human activities.	**Pass**
	Tree 6: There was no evidence of adverse effects on tree health by human activities.	**Pass**
Criteria E – Natural ecological niches for vertebrates and invertebrates are present.	**Tree 1:** Tree in good health.	**Fail**
	Tree 2: Tree is young and in good condition.	**Fail**

	Tree 3: Tree is young and in good condition.	**Fail**
	Tree 4: Tree is young and in good condition.	**Fail**
	Tree 5: Tree is semi-mature and in good condition.	**Fail**
	Tree 6: Tree is semi-mature and in good condition.	**Fail**
Criteria F – More than 20% of the tree canopy area is oversailing vegetation beneath.	**Tree 1:** The tree is surrounded by scrub, with early successional species found below.	**Pass**
	Tree 2: The tree is surrounded by introduced shrub	**Pass**
	Tree 3: The tree is surrounded by introduced shrub	**Pass**
	Tree 4: The tree is surrounded by introduced shrub	**Pass**
	Tree 5: The tree is surrounded by ruderal vegetation within grassland	**Pass**
	Tree 6: The tree is surrounded by ruderal vegetation within grassland	**Pass**
Overall Baseline Condition	**T1: Moderate** (4)	
	T2: Moderate (4)	
	T3: Moderate (4)	
	T4: Moderate (4)	
	T5: Moderate (4)	
	T6: Moderate (4)	

Passes 5 or 6 criteria = Good, passes 3 or 4 criteria = Moderate, Passes 2 or fewer criteria= Poor

Line of Trees Condition Assessment

Criteria	Condition Assessment	Pass / Fail
Criteria A – At least 70% of trees are native species.	The trees consisted of hornbeam *Capinu betulus*, whitebeam S*orbus aria*, elder *Sambucus nigra,* silver birch *Betula pendula* and ash *Fraxinus excelsior* which are all native species.	**Pass**
Criteria B – Tree canopy gap is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	The trees well-spaced so gaps present in canopy	**Fail**
Criteria C – One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates.	The trees were all semi-mature in good health, with limited signs of deterioration.	**Fail**
Criteria D – There is an undisturbed naturally-vegetated strip of at least 6 m on both sides.	Amenity grassland or sparsely vegetated urban land up to 3m either side.	**Fail**
Criteria E – At least 95% of the trees are in a healthy condition.	All the trees look to be in a healthy condition with no signs of ill health such as excessive dead branches.	**Pass**
Overall Baseline Condition	**Poor (2)**	

Condition assessment result (out of 5 criteria) Passes 5 criteria = Good, passes 3 or 4 criteria = Moderate, passes 2 or fewer criteria = Poor

Sparsely Vegetated Land Condition Assessment		
Criteria	**Condition Assessment**	**Pass / Fail**
Criteria A – Good example of its specific habitat type.	SPVL1 Similar description present to that of UK Hab classification	**Pass**
	SPVL2 Similar description present to that of UK Hab classification	**Pass**
Criteria B – Cover of bracken *Pteridium aquilinum*, scrub and trees is <25%.	SPVL1 No bracken or scrub, however canopy of adjacent woodland is overhanging.	**Pass**
	SPVL2. No bracken or scrub present	**Pass**
Criteria C – Absence of Invasive Non-Native Species (INNS)	SPVL1 No invasive species were present.	**Pass**
	SPVL2. No invasive species present	**Pass**
Criteria D – Vegetation cover of vascular and non-vascular plants between 5-50%	SPVL1 Under 50% vegetation present.	**Pass**
	SPVL2. Under 50%vegetation present.	**Pass**
Overall Baseline Condition	**SVL1 Good (4)**	
	SVL2 – Good (4)	
Condition assessment result (out of 4 criteria) Passes 4 criteria = Good, passes 3 criteria = Moderate, passes 2 or fewer criteria = Poor		

Broadleaved Woodland Condition Assessment		
Criteria	**Condition Assessment**	**Points (1 low, 2 moderate, 3 good)**
Criteria A – Age Distribution	Mostly young and semi-mature trees present.	**2 Points**
Criteria B – Wild domestic and feral herbivore damage	No significant browsing damage evident in woodlands	**3 Points**
Criteria C – Invasive plant species	No invasive species were within the woodland	**3 Points**
Criteria D – Number of native tree species	Ash, elder, whitebeam, sycamore, cherry, hornbeam and poplar species identified. Therefore, greater than 5 native tree species.	**3 Points**
Criteria E – Cover of native tree and shrub species	Tree species as above, shrub species; dogwood, bramble, guelder rose, hogweed, hazel and hawthorn dominating the shrub layer	**3 Points**
Criteria F – Open space within woodland	Less than 20% open space within woodlands present	**3 Points**
Criteria G – Woodland regeneration	Multiple young tree species with <7cm dbh tree species present in hazel, hawthorn, guelder rose, cherry and sycamore.	**3 Points**
Criteria H – Tree health	Trees mostly young or semi-mature showing no signs of poor health. All in good condition	**3 Points**
Criteria I – Vegetation and flora	Recognisable species	**2 Points**
Criteria J – Woodland vertical structure	Two storeys across all plots. Tree canopy layer being a similar height then a lower shrub layer.	**2 Points**
Criteria K – Veteran trees	No veteran trees present	**1 Point**
Criteria L – amount of deadwood	Limited deadwood seen on species aside from ash or some weather damage (<25%)	**1 Points**
Criteria M – Woodland disturbance	No nutrient enrichment or damaged ground evident.	**3 Points**
Overall Baseline Condition	**Moderate (32 points)**	
Condition assessment result (score out of 39 criteria) Score of 33-39 = Good, Score of 26-32 = Moderate, Score less than 26 (13-25) = Poor		

Condition assessment result (out of 5 criteria) Passes 5 criteria = Good, passes 3 or 4 criteria = Moderate, passes 2 or fewer criteria = Poor

Modified Grassland Condition Assessment		
Criteria	**Condition Assessment**	**Pass / Fail**
Criteria A – There are 6-8 vascular plant species per m^2 present, including at least 2 forbs.	**MG 1 -** 1m^2 included creeping buttercup, broadleaved dock, cock's-foot, spear thistle, nettle, Yorkshire fog	**Pass**
	MG 2 - 1m^2 included creeping buttercup, broadleaf dock, cock's-foot, spear thistle, nettle, Yorkshire fog	**Pass**
	MG 3 - 1m^2 included ragwort, hogweed, nettle, willowherb, buttercup and grasses.	**Pass**
	MG 4 – Less than 6 species per m^2. Dominated by hogweed, common nettle, willowherb, ragwort	**Fail**
Criteria B – Sward height is varied.	**MG 1 -** The sward was uniform at around 15cm tall.	**Fail**
	MG 2 - The sward was uniform at around 15cm tall.	**Fail**
	MG 3 - The sward was uniform at around 15cm tall.	**Fail**
	MG 4 – Dominated by tall herbs	**Fail**
Criteria C – Any scrub present accounts for less than 20% of the total grassland area.	**MG 1 -** Some areas of scrub adjacent, but little encroachment.	**Pass**
	MG 2 - No scrub present.	**Pass**
	MG 3 - A small patch of cotoneaster is present to the south of the parcel however this covers less than 20% of the overall grassland parcel area.	**Pass**
	MG4 – Some bramble scrub, but only occasional.	**Pass**
Criteria D – Physical damage is evident in less than 5% of total grassland area.	**MG 1 -** No evidence of damage	**Pass**
	MG 2 - Construction materials and rubble encroaching onto grassland as well as spoil heaps covering over 5% of the grassland causing damage	**Fail**
	MG 3 - No evidence of damage	**Pass**
	MG4 – No evidence of damage	**Pass**
Criteria E – Cover of bare ground is between 1% and 10%.	**MG 1 -** No bare ground was identified during the Field Survey	**Fail**
	MG 2 - Some areas of bare ground where spoil heap has become vegetated, however this is limited.	**Fail**
	MG 3 - No bare ground was identified during the Field Survey	**Fail**
	MG4 – Limited bare ground.	**Pass**
Criteria F – Cover of bracken *Pteridium aquilinum* is less than 20%.	**MG 1 -** There is no bracken present	**Pass**
	MG 2 - There is no bracken present	**Pass**

	MG 3 - There is no bracken present	**Pass**
	MG4 – There is no bracken present	**Pass**
Criteria G – Invasive Non-Native Species (INNS)	**MG 1 -** There are no INNS species present	**Pass**
	MG 2 - There are no INNS species present	**Pass**
	MG 3 - Young small cotoneaster plant shrub found to south.	**Fail**
	MG4 – No INNS present.	**Pass**
Overall Baseline Condition	**Parcel 1: Moderate (5)**	
	Parcel 2: Moderate (4)	
	Parcel 3: Moderate (4)	
	Parcel 4: poor (4 but not pass A)	
Condition assessment result (out of 7 criteria) Passes 6 or 7 criteria including passing criteria A = Good, passes 4 or 5 criteria (excluding criteria A) = Moderate, passes 3 or fewer criteria or 4 to 6 criteria (excluding criteria A) = Poor		

Species List				
Habitat ID: Urban Tree				
Common Name	**Scientific Name**			
Scots pine	*Pinus sylvestris*			
Alder	*Alnus glutinosa*			
Rowan	*Sorbus aucuparia*			

Species List				
Habitat ID: Line of trees				
Common Name	**Scientific Name**	**Canopy Layer**		
Hornbeam	*Carpinus betulus*	O		
Whitebeam	*Sorbus aria*	O		
Ash	*Fraxinus excelsior*	O		
Birch	*Betula pendula*	O		

Species List			
Habitat ID: Introduced Shrub			
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**
Wilson's honeysuckle	*Lonicera nitida*	-	D
Cotoneaster	*Cotoneaster sorensii*	-	D
Cock's-foot	*Dactylis glomerata*	O	-
Tufted hair-grass	*Deschampsia cespitosa* subsp. *cespitosa*	O	-
Nettle	*Urtica dioica*	R	-
Hogweed	*Heracleum sphondylium*	R	-
Bramble	*Rubus fruticosus* agg.	A	-
Broad-leaved Willowherb	*Epilobium montanum*	R	R

Species List				
Habitat ID: Sparsely Vegetated ground				
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**	**Canopy Layer**
Broad-leaved Willowherb	*Epilobium montanum*	O	-	-
Common nettle	*Urtica dioica*	O	-	-
Creeping thistle	*Cirsium arvense*	O	-	-
Common ragwort	*Senecio jacobaea*	O	-	-
Ribwort plantain	*Plantago lanceolata*	R	-	-
Rosebay willowherb	*Chamaenerion angustifolium*	R	-	-
Bramble	*Rubus fruticosus* agg.	R	-	-
Hogweed	*Heracleum sphondylium*	O	-	-
Broad-leaved dock	*Rumex obtusifolius*	O	-	-

Species List				
Habitat ID: Woodland				
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**	**Canopy Layer**
Hornbeam	*Capinus betulus*	-	-	O
Whitebeam	*Sorbus aria*		-	A
Ash	*Fraxinus excelsior*			**O**
Elder	*Sambucus nigra*			**O**
Sycamore	*Acer pseudoplatanus*		R	
White Poplar	*Populus alba*			**R**
Wild cherry	*Prunus avium*		R	
Birch	*Betula pendula*			**O**
Dogwood	Cornus sanguinea		F	
Dog rose	*Rosa canina*		F	
Hawthorn	*Crataegus monogyna*		R	
Blackthorn	*Prunus spinosa*		R	
Hazel	Corylus avellana		O	
Guelder-rose	*Viburnum opulus*		F	
Creeping buttercup	*Ranunculus repens*	O		
Cock's-foot	*Dactylis glomerata*	F	-	-
Broadleaf dock	*Rumex obtusifolius*	O		
Yorkshire fog	*Holcus lanatus*	O		
Spear thistle	*Cirsium vulgare*	R		
Creeping thistle	*Cirsium arvense*	R		
Ribwort plantain	*Plantago lanceolata*	O	-	-
False oat-grass	*Arrhenatherum elatius*	O		-
Teazel	*Dipsacus fullonum*	O	-	-

Species List			
Habitat ID: Modified grassland			
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**
Perennial rye-grass	*Lolium perenne*	A	-
Yorkshire fog	*Holcus lanatus*	A	-
Cock's-foot	*Dactylis glomerata*	F	-
White clover	*Trifolium repens*	O	-
Woundwort	*Stachy sp.*	D	-
Bramble	*Rubus fruticosus agg.*	O	O
Creeping thistle	*Cirsium arvense*	O	-
Common ragwort	*Senecio jacobaea*	F	-
Spear thistle	*Cirsium vulgare*	R	-
Selfheal	*Prunella vulgaris*	A	-
Ribwort plantain	*Plantago lanceolata*	O	-
Rosebay willowherb	*Chamaenerion angustifolium*	O	-
Greater plantain	*Plantago major*	R	-
Common knapweed	*Centaurea nigra*	O	-

E. Plant Schedule

THOMAS GRAHAM EGREMONT **Revision B** **18 12 24**
PLANT SCHEDULE

NATIVE TREES AND SHRUBS- WOODLAND MARGIN **260 sq.m.** **130** **0.5/ sq.m.**

Plant name	Common name	% in mix	Number	Specification
Crataegus monogyna	Hawthorn	20%	26	40/60cm bare root
Corylus avellana	Hazel	20%	26	40/60cm bare root
Prunus spinosa	Blackthorn	10%	13	40/60cm bare root
Ilex aquifolium	Holly	10%	13	30/40cm in C2 container
Acer campestre	Field Maple	5%	7	40/60cm bare root
Sorbus aucuparia	Rowan	5%	7	40/60cm bare root
Prunus padus	Bird Cherry	5%	7	40/60cm bare root
Sambucus nigra	Elder	5%	7	40/60cm bare root
Viburnum opulus	Geulder Rose	5%	6	40/60cm bare root
Malus sylvestris	Crab Apple	5%	6	40/60cm bare root
Rosa canina	Dog Rose	5%	6	40/60cm bare root
Cytisus scoparius	Broom	5%	6	30/40cm in C2 container

NATIVE TREES			**Number**	
Alnus glutinosa	Alder	AG	5	2-2.5m bare root
Quercus petraea	Sessile Oak	QP	5	2-2.5m bare root
Betula pendula	Silver Birch	BP	2	8-10cm rootballed
Sorbus aucuparia	Rowan	SA	2	2-2.5m bare root
Pinus sylvestris	Scots Pine	PS	2	40-60cm C5
Crataegus monogyna	Hawthorn	CM	1	2-2.5m bare root
Prunus padus	Bird Cherry	PP	4	2-2.5m bare root
Prunus avium	Gean	PA	2	2-2.5m bare root
Acer campestre	Field Maple	AC	5	2-2.5m bare root
			28	

NATIVE HEDGE	**NBH**	53m	212 plants	4/ lin.m.
Crataegus monogyna	Hawthorn	55%	117	40/60cm bare root
Corylus avellana	Hazel (note extra 130 shrub layer)	10%	21	40/60cm bare root
Ilex aquifolium	Holly	10%	21	30/40cm in C2 container
Prunus spinosa	Blackthorn	5%	11	40/60cm bare root
Acer campestre	Field Maple	5%	11	40/60cm bare root
Sambucus nigra	Elder	5%	10	40/60cm bare root
Viburnum opulus	Geulder Rose	5%	10	40/60cm bare root
Rosa canina	Dog Rose	3%	6	40/60cm bare root
Lonicera periclymenum	Holly	2%	5	30/40cm in C2 container

TREES			
Acer platanoides Drummondii	AD	1	8-10cm rootballed
Prunus subhirtella Autumnalis	PSA	1	8-10cm rootballed
Prunus Pink Perfection	PPP	1	8-10cm rootballed
Sorbus Asplenifolia	SAS	3	8-10cm rootballed
Sorbus Embley	SE	3	8-10cm rootballed
TOTAL TREES		**9**	

SPECIMEN SHRUBS			
Amelanchia lamarckii	AL	2	C10 80-90cm
Mahonia Charity	MC	1	C10 60-80cm
Phormium Sundowner	PS	2	C10 60-80cm
Photinia Red Robin	PR	1	C10 60-80cm
TOTAL SPECIMENS		**6**	

SHRUBS		**86 sq.m.**		**No/ sq.m.**
Bergenia cordifolia	Bc	20-30cm	CG 2 litre	5
Cotoneaster Skogholm Coral Beauty	Cc	20-30cm	CG 2 litre	3
Euonymus Emerald Gaiety	Ee	20-30cm	CG 2 litre	3
Hebe Sutherlandii	Hs	20-30cm	CG 2 litre	4
Hebe Autumn Glory	Ha	20-30cm	CG 2 litre	3
Hebe Midsummer Beauty	Hm	20-30cm	CG 2 litre	3
Hypericum calicynum	Hc	20-30cm	CG 2 litre	4
Lonicera pileata Maigreen	Lm	30-45cm	CG 2 litre	2
Potentilla Elizabeth	Pe	20-30cm	CG 2 litre	3
Senecio Sunshine	Ss	20-30cm	CG 2 litre	3
Vinca minor	Vm	20-30cm	CG 2 litre	5

HEDGE	12m	48 plants	No/ lin.m.
Hebe Blue Gem	40-50cm in C5 container		4

BULBS		**Number**
Narcissus King Alfred or similar	N	700

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THOMAS GRAHAM EGREMONT **Revision B** **18 12 24**
PLANT SCHEDULE

HABITAT			**NOTES**
Ornamental trees	Nr.	9	8/10 cm rootballed
Native trees in hedges	Nr.	5	2-2.5m bare root
Native trees	Nr.	24	2-2.5m bare root
Specimen shrubs	Nr.	6	C10 containers
Native trees and shrubs- edge mix	Sq.m.	206	0.5/ sq.m.
Native shrubs	Sq.m.	160	0.5/ sq.m.
Shrubs	Sq.m.	86	2-5/ sq.m.
Hedge	Lin.m.	12	4/m.
Native hedge	Lin.m.	53	4/m.
Amenity grass	Sq.m.	138	Turf
Native wildflower grass	Sq.m.	1206	
Bulbs	Nr.	700	

F. Post-Development Condition Assessment

Site ID(s): Bridge End				
Local Planning Authority: Copeland County Council	**Site Name:** Bridge End	**Site ha:** 0.86	**Survey Date:** 28/08/2024	**Baseline Habitat Units: 1.65**
National Character Area: NCA 7 – West Cumbria Coastal Plain	**Grid Reference:** NY 01328 10105	**Habitat Type(s):** Habitats areas consist of introduced shrub (Secondary Code; SC 843); other broadleaved woodland (w1g), developed land; sealed surface (u1b), mixed scrub (h3h), Other neutral grassland (g3c), individual urban trees (SC 34). Linear habitats of line of trees, species-rich native hedgerow with trees and non-native and ornamental hedgerow.		**Baseline Hedgerow Units: 0.06**

Baseline Habitat Description:

The majority of the Site consisted of urban habitats, predominantly developed land sealed surface, or buildings. The site hosted a six different area habitats; five areas of introduced shrub, four areas of modified grassland one of which is dominated by tall ruderals (secondary code 81), two areas of sparsely vegetated land an area of broadleaved woodland and are present on site amongst developed land and buildings. A line of trees was present to the north of the site consisting of hornbeam, birch, elder and ash. The broadleaved woodland to the west of the Site consisted of hornbeam, birch, elder, alder, ash, sycamore, white poplar *Populus alba*, and cherry species.
The surrounding habitat beyond the site boundary consisted of access roads to the other areas of the industrial estate, the River Ehen is ~12m west of the Site, and broadleaved woodland, which is connected to the woodland on-site to the west.

Ecological Constraints:
Himalayan cotoneaster was identified in a number of locations on site and Himalayan balsam was identified ~10m west of site. Both of which are Schedule 9 species of the Wildlife and Countryside Act 1981. Therefore it is illegal to disturb or cause the spread of these species.

Supporting Documents:

Strategic Significance	The site falls within the area for Cumbria Local Nature Recovery Strategy (LNRS. This is a formally recognised LNRS but is still undergoing review and development). None of the habitats within the site are formally recognised within the LNRS.

Urban Tree Post Development Condition Assessment		
Criteria	**Condition Assessment**	**Pass / Fail**
Criteria A – The tree is a native species (or at least 70% within the block are native species).	**New Individual Trees (15):** Over 70% of new individual trees are to be native species.	**Pass**
Criteria B – The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	**New Individual Trees (15):** Automatic pass for individual trees.	**Pass**
Criteria C – The tree is mature (or more than 50% within the block are mature)	**New Individual Trees (15):** Unlikely to reach maturity within 27 years.	**Fail**
Criteria D – There is little or no evidence of an adverse impact on tree health by human activities. And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	**New Individual Trees (15):** The site is industrial, therefore unlikely for trees to be impacted by human activities.	**Pass**
Criteria E – Natural ecological niches for vertebrates and invertebrates are present.	**New Individual Trees (15):** Unlikely for ecological niches to develop in young healthy trees.	**Fail**
Criteria F – More than 20% of the tree canopy area is oversailing vegetation beneath.	**New Individual Trees (15):** Trees to be planted on top of other neutral grassland.	**Pass**
Overall Baseline Condition	**New Individual Trees (16):** Moderate (4)	
Passes 5 or 6 criteria = Good, passes 3 or 4 criteria = Moderate, Passes 2 or fewer criteria= Poor		

Broadleaved Woodland Condition Assessment		
Criteria	**Condition Assessment**	**Points (1 low, 2 moderate, 3 good)**
Criteria A – Age Distribution	BW to south west – New trees planted at young age, therefore no age distribution.	**1 Point**
Criteria B – Wild domestic and feral herbivore damage	BW – new planting, unlikely to be present.	**3 Point**
Criteria C – Invasive plant species	BW – No INNS in new planting regime, assume HMMP ensures these do not spread	**3 Points**
Criteria D – Number of native tree species	BW2 (to west) – greater than 5 species being planted	**3 Points**
	BW3 (to north) – greater than 5 species being planted	**3 Points**
Criteria E – Cover of native tree and shrub species	Tree species as above, shrub species; dogwood, bramble, guelder rose, hogweed, hazel and hawthorn dominating the shrub layer	**3 Points**
Criteria F – Open space within woodland	Less than 20% open space within woodlands present	**3 Points**
Criteria G – Woodland regeneration	Multiple young tree species with <7cm dbh tree species present in hazel, hawthorn, guelder rose, cherry and sycamore.	**1 Points**
Criteria H – Tree health	Trees mostly young or semi-mature showing no signs of poor health. All in good condition	**3 Points**
Criteria I – Vegetation and flora	Recognisable species	**1 Points**
Criteria J – Woodland vertical structure	Two storeys across all plots. Tree canopy layer being a similar height then a lower shrub layer.	**2 Points**
Criteria K – Veteran trees	No veteran trees present	**1 Point**
Criteria L – amount of deadwood	Limited deadwood seen on species aside from ash or some weather damage (<25%)	**1 Points**
Criteria M – Woodland disturbance	No nutrient enrichment or damaged ground evident.	**3 Points**
Overall Baseline Condition	**Moderate (31 points)**	
Condition assessment result (score out of 39 criteria) Score of 33-39 = Good, Score of 26-32 = Moderate, Score less than 26 (13-25) = Poor		

Condition assessment result (out of 5 criteria) Passes 5 criteria = Good, passes 3 or 4 criteria = Moderate, passes 2 or fewer criteria = Poor

Modified Grassland Condition Assessment		
Criteria	**Condition Assessment**	**Pass / Fail**
Criteria A – There are 6-8 vascular plant species per m^2 present, including at least 2 forbs. This is essential to achieve moderate or good condition	**New MG 1 –** Turf is usually single species.	**Fail**
Criteria B – Sward height is varied.	**MG 1 -** The sward likely to be managed and uniform	**Fail**
Criteria C – Any scrub present accounts for less than 20% of the total grassland area.	**MG 1 –** Management unlikely to allow scrub to take hold	**Pass**
Criteria D – Physical damage is evident in less than 5% of total grassland area.	**MG 1 –** Small area	**Fail**
Criteria E – Cover of bare ground is between 1% and 10%.	**MG 1 –** Potential for bare ground under tree species.	**Pass**
Criteria F – Cover of bracken *Pteridium aquilinum* is less than 20%.	**MG 1 –** Management will not allow bracken to take hold	**Pass**
Criteria G – Invasive Non-Native Species (INNS)	**MG 1 -** There are no INNS species present in Turf	**Pass**
Overall Baseline Condition	**MG1: Poor (4 and fail A)**	

Condition assessment result (out of 7 criteria) Passes 6 or 7 criteria including passing criteria A = Good, passes 4 or 5 criteria (excluding criteria A) = Moderate, passes 3 or fewer criteria or 4 to 6 criteria (excluding criteria A) = Poor

Other Neutral Grassland Condition Assessment		
Criteria	**Condition Assessment**	**Pass / Fail**
Criteria A – Good representation of habitat type. High number of characteristic species.	**ONG (all areas assessed as one) –** Large area if managed correctly can achieve good representation.	**Pass**
Criteria B – Sward height is varied.	**ONG –** Good Management practises should be able to achieve this.	**Pass**
Criteria C – Bare ground between 1% and 5%.	**ONG –** Dependent on management , hard to achieve an accurate small percentage.	**Fail**
Criteria D – Cover of bracken *Pteridium aquilinum* is less than 20% and scrub less than 5%	**ONG -** No bracken or scrub species being planted. But scrub may encroach from adjacent habitats. Good management should be able to achieve this.	**Pass**
Criteria E – Signs of damage less than 5% and no INNS	**ONG –** Unlikely for signs of damage if left	**Pass**
Criteria F – 10 or more vascular plants per metre square.	**ONG –** Difficult to call without species mix and known management procedures to make a better judgement.	**Fail**
Overall Baseline Condition	**Parcel 1: Moderate (4)**	
Condition assessment result (out of 6 criteria) Passes 5 or 6 criteria including passing criteria A and Additional criteria F = Good, passes 3 -5 criteria (including criteria A) = Moderate, passes 2 or fewer criteria or passes 3 or 4 criteria (excluding criteria A) = Poor		

Species Rich Native Hedgerow With Trees Condition Assessment		
Criteria	**Condition Assessment**	**Pass / Fail**
A1 Height, average >1.5m along length	**Unlikely to be 1.5m height initially. Scrubs have potential to grow to at least 1.5m height. Field Maple and Bird Cherry planted 2-2.5m high**	**Pass**
A2 Width, average >1.5m along length	**Plans do not look like it will be 2m wide. Here is potential for this to become 2m wide**	**Fail**
B1, Gap hedge base	**Likely gaps in canopy until trees begin to mature more and branch out**	**Fail**
B2, Gap hedge canopy	**Multiple species per metre of hedge will mean very few gaps**	**Pass**
C1 undisturbed ground and perennial vegetation	**New habitat in industrial estate, unlikely to be disturbed.**	**Pass**
C2, nutrient-enriched perennial vegetation	**Planted adjacent to other neutral grassland**	**Pass**
D1, Invasive and neophyte species	**New planted hedge, should be managed. Unlikely for INNS to be present.**	**Pass**
D2, Current Damage	**New hedgerow, undisturbed.**	**Pass**
E1, Tree Class	**No variety in tree species present.**	**Fail**
E2, Tree health	**Trees all likely to be healthy**	**Pass**
Overall Baseline Condition	**SRNHWT: Moderate (3 fails)**	

Condition assessment result Good = No more than 2 failures in total and no more than 1 failure in any functional group. Moderate = no more than 4 failures in total and does not fail both attributes in more than one functional group. Poor = Fails a total of more than 4 attributes OR fails both attributes in more than one group.

Species List				
Habitat ID: Urban Tree				
Common Name	**Scientific Name**			
	Sorbus embley			
Silver Birch	*Betula pendula*			
	Prunus subjirtella			
Further species TBC				

Species List				
Habitat ID: Line of trees				
Common Name	**Scientific Name**	**Canopy Layer**		
Hornbeam	*Carpinus betulus*	O		
Whitebeam	*Sorbus aria*	O		
Ash	*Fraxinus excelsior*	O		
Birch	*Betula pendula*	O		

Species List			
Habitat ID: Introduced Shrub			
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**
	Bergenia cordifolia	-	
Coral Beauty	*Cotoneaster skogholm*	-	
Euonymus Emerald Gaiety			-
Hebe Sutherlandii	*Hebe Sutherlandii*		-
Hebe Autumn Glory			-
Hebe Midsummer Beauty			-
Hypericum calicynum	*Hypericum calicynum*		-
Lonicera pileata Maigreen	*Lonicera pileata*		

Species List				
Habitat ID: Native Hedge				
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**	**Canopy Layer**
Hawthorn	*Crataegus monogyna*		D	-
Hazel (note extra 130 shrub layer)	*Corylus avellana*		F	-
Holly	*Ilex aquifolium*		F	-
Blackthorn	*Prunus spinosa*		-O	-
Field Maple	*Acer campestre*		-O	-
Elder	*Sambucus nigra*		-O	-
Geulder Rose	*Viburnum opulus*		-R	-
Dog Rose	*Rosa canina*		-R	-

Species List				
Habitat ID: Ornamental Hedge				
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**	**Canopy Layer**
Hebe blue gem			D	-

Species List				
Habitat ID: Woodland				
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**	**Canopy Layer**
Alder	*Alnus glutinosa*	-	-	
Sessile Oak	*Quercus petraea*		-	
Silver Birch	*Betula pendula*			
Rowan	*Sorbus aucuparia*			
Scots Pine	*Pinus sylvestris*			
Hawthorn	*Crataegus monogyna*			
Bird cherry	*Prunus padus*			
Wild cherry	*Prunus avium*			
Field Maple	*Acer campestre*			
Hawthorn	*Crataegus monogyna*			
Hazel	*Corylus avellana*			
Blackthorn	*Prunus spinosa*			
Holly	*Ilex aquifolium*			
Elder	*Sambucus nigra*			
Geulder Rose	*Viburnum opulus*			
Crab Apple	*Malus sylvestris*			
Dog Rose	*Rosa canina*			
Broom	*Cytisus scoparius*		-	-

Species List			
Habitat ID: Other neutral grassland			
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**
TBC			-

Species List			
Habitat ID: Modified grassland			
Common Name	**Scientific Name**	**Ground Layer**	**Shrub Layer**
TBC			-

G. Headline Results

On-site baseline	*Habitat units*	1.65	
	Hedgerow units	0.06	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	1.94	
	Hedgerow units	0.52	
	Watercourse units	0.00	
On-site net change (units & percentage)	*Habitat units*	0.30	17.95%
	Hedgerow units	0.46	761.60%
	Watercourse units	0.00	0.00%

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