



CLIENT: ALPHA DESIGN
SITE: LAND OFF DALZELL STREET, MOOR ROW
DATE: SEPTEMBER 2022
TITLE: JN00551/D02 – BIODIVERSITY BASELINE

Figures attached to indicative BIA:

JN00551/DW02 – Baseline BNG Plan

Defra Metric 3.1 spreadsheets (available electronically on request):

JN00551/BNG – Dalzell Street, Moor Row Baseline BNG

Executive Summary

- 1.1 SK Environmental Solutions Limited (SKE) was commissioned by Alpha Design to assess the baseline score for a site located east of Dalzell Street, north of the village of Moor Row, Cumbria.
- 1.2 The assessment has been carried out using the Defra Metric 3.1. The Metric '*provides a way to measure biodiversity loss and gain in a consistent and robust way*'. It calculates a biodiversity value (measured in biodiversity units) for a site both before development commences and after development is completed, allowing the difference (positive or negative) to be measured. Within this document only the baseline assessment has been completed and reported.
- 1.3 Baseline habitat survey work was undertaken by SKE in September 2022.
- 1.4 The assessment indicates baseline values for the site (red line boundary) of 20.01 habitat units and 0.56 hedgerow units.

Definition of Terms

- 1.5 For the purposes of this report, the term 'site' is used to describe the area indicated by the red line boundary on Plate 1, below.



Plate 1 – Site Boundary

Background

1.6 This document sets out the following:

- the baseline habitats and hedgerows on the site.

1.7 As the site boundary is situated more than 10m from the River Keekle, a baseline assessment of this using the rivers metric is not required and has not been undertaken.

Planning Policy

1.8 National and local planning policies of relevance to the application and Biodiversity Net Gain are set out below.

- 1.9 Chapter 15 of the National Planning Policy Framework (NPPF) sets out the Government's objectives for planning in regard to the protection of habitats and biodiversity. The planning objectives in relation to biodiversity and the natural environment are laid out in paragraph 174 as follows:
- "Planning policies and decisions should contribute to and enhance the natural and local environment by:
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; ...
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."
- 1.10 Paragraph 179 of the NPPF states that:
- "To protect and enhance biodiversity and geodiversity, plans should:
- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and steppingstones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
 - b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."
- 1.11 With regard to planning applications and biodiversity, Paragraph 180 of the NPPF states that:
- "When determining planning applications, local planning authorities should apply the following principles:
- a) 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..."
- 1.12 The National Planning Practice Guidance (PPG) provides further guidance to local authorities in relation to biodiversity planning. The PPG explains that planning applications should be informed by appropriate ecological survey work and that developments should be encouraged to protect and enhance biodiversity by following the 'mitigation hierarchy' to avoid, mitigate, or compensate for significant adverse effects to biodiversity.
- 1.13 The PPG also sets out and explains that plans should encourage a 'net gain' in biodiversity, whereby development leaves the natural environment in a measurably better state than it was beforehand.
- 1.14 The Environment Bill, which is currently progressing through Parliament, includes a strengthening of the existing duty on public authorities to conserve biodiversity. The Environment Bill will be applied to the planning system by inserting a new section 90A within the Town and Country Planning Act 1990 (TCPA) and the follow-on amendments, to all projects

under the 2008 Act. The new section 90A TCPA will make it a requirement that all planning permissions granted in England be subject to a condition ensuring that the biodiversity value attributed to the development exceeds the predevelopment value by at least 10%; this is, however, not expected to become law before 2023.

- 1.15 The Department of Environment, Food and Rural Affairs (DEFRA) metric has been developed to calculate biodiversity net gain (BNG); it calculates biodiversity values before and after development. Natural England and DEFRA recently published a new, joint Biodiversity Metric 3.0 in July of 2021. The use of this metric provides an evidence-based approach to measure and account for nature losses/gains from proposed developments.

- 1.16 The Local Plan for Copeland 2021-2038 (draft publication) includes policy N3PU, which states:

*“Strategic Policy N3PU – **Biodiversity Net Gain**.*

All development, with the exception of that listed in the Environment Act must provide a minimum of 10% biodiversity net gain over and above existing site levels.... This is in addition to any compensatory habitat provided under Policy N1PU.

Net gain should be delivered on site where possible. Where on-site provision is not appropriate, provision must be made elsewhere in order of the following preference: 1. Off site in an area identified as a Local Nature Recovery Network; 2. Off site on an alternative suitable site within the borough; 3. Through the purchase of an appropriate amount of national biodiversity units/credits.

Planning applications must include a Biodiversity Gain Plan which will identify the biodiversity merit of onsite habitats both prior to and after development (using the relevant Metric system), set out details to reduce or prevent adverse effects and demonstrate how net gains will be obtained.

Sites where net gain is provided (on or off site) must be managed and monitored by the applicant or an appropriate body funded by the applicant for a minimum period of 30 years. Annual monitoring reports detailing the sites condition post-enhancement must be submitted to the Council each year over this period.

Where there is evidence of deliberate neglect or damage to any of the habitats on development sites in order to reduce its biodiversity value their deteriorated condition will not be taken into consideration and previous ecological records of the site and/or the ecological potential of the site will be used to decide the acceptability of any development proposals.”

- 1.17 Cumbria Local Nature Recovery Network (Cumbria County Council, 2021) provides a strategic assessment of the borough’s biodiversity and habitat networks and identifies opportunities to increase habitat connectivity.

Defra Metric - Methodology

- 1.18 There are a number of equations undertaken as part of the metric, but simply put, the metric calculates the change in biodiversity value resulting from a development by subtracting the number of pre-intervention or ‘baseline’ biodiversity units (those generated by existing habitats) from the number of post-intervention units (those anticipated to be provided after the development).

- 1.19 The calculation includes three separate categories: 'Habitat', 'Hedgerows and Lines of Trees' and 'Rivers and Streams'. Each category is considered separately and generates individual loss/gain results.
- 1.20 In order to populate the metric baseline, each land parcel (defined as contiguous habitats of the same type) and linear feature is measured and then assigned the following:
- Habitat Type - which carries with it a pre-assigned 'distinctiveness' classification, from 'very low' to 'very high'. This is a measure of habitat rarity and/or importance;
 - Condition – this is a measure of habitat quality as an example of the given habitat type (as per criteria set out in Biodiversity Metric 3.1 Technical Supplement) and can be 'low', 'moderate', or 'high';
 - Strategic Significance – this is determined by whether the location of an existing/proposed habitat parcel is considered to be significant for nature. Such areas are typically identified in relevant published local strategies and objectives, such as an allocation for nature conservation purposes within a Local Plan or designated as a statutory site under the relevant legislation etc.
- 1.21 The metric then multiplies the area or linear length of a land parcel by the assigned distinctiveness, condition and strategic significance 'multipliers' to provide a baseline score in habitat or hedgerow units.
- 1.22 The same process would then be followed for post development land parcels which will have either been retained (no change), enhanced (either through an increase in condition or to habitat type which is of a higher distinctiveness) or lost and replaced with a different habitat type. There are also a number of additional factors involved in calculating the post-intervention scores such as:
- How long it would take for newly created habitats to reach the target condition;
 - Whether there will be a delay in habitat creation, or indeed whether habitats have been created/enhanced in advance of impacts; and
 - How difficult it is to create a particular habitat type. Generally, the higher the distinctiveness the more difficult it is to create. For this reason, the metric also includes a number of 'trading rules' which must be satisfied when habitats are lost. For example, habitats of 'very high' distinctiveness, such as ancient woodland, are classed as 'irreplaceable' and therefore cannot be compensated for within the metric and habitats that are of 'high' distinctiveness must be replaced by the same habitat as that which was lost.
- 1.23 The summary tables in this Indicative BNG Assessment use data taken from the Defra Metric 3.1 spreadsheets rounded to two decimal places to make presentation user friendly. This does not affect the overall results or % change in habitat/hedgerow units presented. The full metric spreadsheets are available electronically on request.

Baseline Survey

- 1.24 SKE undertook a UK Habitat Classification (UKHab) Survey of the Site in September 2022; an experienced ecologist conducted the survey, and a robust assessment was completed within the optimal survey period.
- 1.25 Seasonal trends and inherent variations in ecosystem dynamics mean that some species of flora may not have been recorded. However, the purpose of the survey was to record habitat types and therefore this is not considered to be a significant limitation.

Baseline Habitats – On Site

- 1.26 None of the habitats within the Site are of ‘very high’ or ‘high’ distinctiveness and no ‘irreplaceable habitats’ were recorded.
- 1.27 The site comprises ‘medium’, ‘low’ and ‘very low’ distinctiveness habitats. These are mixed scrub (medium), other neutral grassland (medium), bramble scrub (medium), other woodland; broadleaved (medium), other lowland acid grassland (medium), ruderal/ephemeral (low), modified grassland (low), artificial unvegetated, unsealed surface (very low), built linear features (very low) and developed land; sealed surface (very low).
- 1.28 The overall baseline score for the Site is **20.01 Habitat Units**. Table 1 below, sets out the baseline habitats and how they contribute to the baseline score (numbers have been provided to two decimal places for ease of use). Baseline habitats are shown on the Baseline BNG Plan (ref: JN00551/DW02).

Table 1 – Baseline Habitats

Habitat Type	Area (Ha)	Distinctiveness	Condition	Habitat Units
Ruderal/ephemeral	0.08	Low	Poor	0.15
Modified grassland	0.84	Low	Poor	1.69
Modified grassland	0.14	Low	Good	0.85
Other woodland; broadleaved	0.56	Medium	Moderate	4.45
Bramble scrub	0.08	Low	N/A	0.30
Artificial unvegetated, unsealed surface	0.02	Very Low	N/A - Other	0.00
Mixed scrub	0.44	Medium	Poor	1.77
Other lowland acid grassland	1.13	Medium	Moderate	9.02
Other neutral grassland	0.45	Medium	Poor	1.78
Built linear feature	0.33	Very Low	N/A - Other	0.00
Developed land; sealed surface	0.16	Very low	N/A - Other	0.00
TOTAL*	4.21	n/a	n/a	20.01
* Totals are taken from Defra Metric 3.1. Due to rounding, totals may differ slightly to the sum of the columns.				

Baseline Hedgerows – On Site

- 1.29 The site includes one hedgerow and tow tree lines. The overall baseline hedgerow score for the development is **0.56 Hedgerow Units**, as shown in Table 2, below.

Table 2 – Baseline Hedgerows

Hedgerow Type	Length (km)	Distinctiveness	Condition	Hedgerow Units
Line of Trees	0.08	Low	Moderate	0.31
Line of Trees	0.10	Low	Poor	0.20
Native Hedgerow	0.02	Low	Poor	0.04
TOTAL				0.56

Baseline Summary

- 1.30 Plate 2 below, is a screenshot from the Biodiversity Metric 3.1 showing a baseline summary for the site.

Note that Plate 2 only shows a baseline habitat summary. Once detailed development design and landscape scheme has been finalised for the project it will be possible to run the full metric and calculate the 'net change' as a result of the development.

On-site baseline	Habitat units	20.01
	Hedgerow units	0.56
	River units	0.00

Plate 2 – Summary of Baseline areas taken from Defra Metric 3.1

- 1.31 Once a definitive landscaping plan has been confirmed for the proposed development, then scores for the post-development habitats and hedgerows can be produced. This will enable the overall net gain/loss of the development to be calculated and will inform the area and condition of post-development habitats necessary to meet the 10% net gain requirement.

TITLE: BNG Baseline Map
CLIENT: Alpha Design
SITE: Land off Dalzell Street, Moor Row

JOB NUMBER: JN00551
DATE: October 2022
DRAWN/CHECKED: JW/MK

SCALE: NTS
DRAWING NUMBER: JN00551 DW02

KEY:

 Site Boundary

HEDGEROWS

 Line of Trees (w1g6NE2)

 Native Hedgerow (h2NE5)

HABITATS

 Artificial unvegetated, unsealed surface

 Bramble scrub

 Built linear features

 Developed land; sealed surface

 Mixed scrub

 Modified grassland

 Other lowland acid grassland

 Other neutral grassland

 Other woodland; broadleaved

 Ruderal/Ephemeral



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