Biodiversity Net Gain Assessment

37 Edward's Avenue, London, HA4 6UP

Sam Berekdar

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Industry Guidelines and Standards

This report has been written with due consideration to:

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management, Construction Industry Research and Information Association & Institute of Environmental Management and Assessment (2019). Biodiversity Net Gain – Good Practice Principles for Development.

Proportionality

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.
>
> (BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Sam Berekdar to undertake a Biodiversity Net Gain (BNG) Assessment at 37 Edwards Avenue, London, HA4 6UP (hereafter referred to as “the site”). The assessment was required to inform a planning application for the construction of a terrace of three houses (hereafter referred to as “the proposed development”).

The baseline habitat value of the site is 0.62 units, comprising developed land; buildings (no value), 0.02 units of bramble scrub, 0.60 units of other neutral grassland.

Contents

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Sam Berekdar to undertake a Biodiversity Net Gain (BNG) Assessment at 37 Edwards Avenue, London, HA4 6UP (hereafter referred to as "the site"). The assessment was required to inform a planning application for construction of a terrace of three houses (hereafter referred to as "the proposed development"). A plan showing the proposed development is provided in Appendix 1.

This report should be read in conjunction with the following documents:

- Defra Biodiversity Statutory Metric (Arbtech, 2024)
- Preliminary Ecological Appraisal (Arbtech, 2024)

1.2 Site Location, Geology and Landscape Context

The rectangular site is located at National Grid Reference TQ 11251 85208 and has an area of approximately 0.052 ha comprising other neutral grassland, bramble scrub and a building. It is surrounded by residential properties with a trainline northeast and RAF Station Northolt west. The wider landscape comprises the London Borough of Hillingdon. A site location plan is provided in Appendix 2.

1.3 BNG Informative

BNG is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation. In order to achieve BNG, a project must be able to demonstrate that it has followed all 10 of the Principles of Biodiversity Net Gain (as outlined in the *British Standard 8683:2021 Process for Designing and Implementing Biodiversity Net Gain*).

The legalised Environment Act (2021) requires developments in England to demonstrate a measurable net gain in biodiversity and sets a target of a minimum of 10% BNG for all developments. It also stipulates that a management plan with a minimum 30-year term, should be adopted to ensure biodiversity net gain can be delivered.

The DEFRA Biodiversity Statutory Metric is the widely accepted tool used to calculate BNG. It enables the calculation of habitat value pre- and post-development in order to determine the overall change in biodiversity value as a result of the proposed development. The Biodiversity Metric has separate BNG assessments for areas of habitat, hedgerows and watercourses.

The biodiversity value of a site should be maximised. However, it may not always be possible to achieve a 10% biodiversity net gain within a site and therefore the Biodiversity Statutory Metric can also account for offsite habitat creation, where land is available. Alternatively, developers can seek to provide an agreed financial contribution to an appropriate third party (such as the Local Authority, the UK Government or another landowner) to deliver the required biodiversity net gain elsewhere on their behalf.

2.0 Methodology

2.1 Baseline Biodiversity Value

The baseline BNG Calculation was informed by Preliminary Ecological Appraisal (Arbtech, 2024). A baseline habitat plan is provided in Appendix 3.

Habitat Classification

The Preliminary Ecological Appraisal (Arbtech, 2024) classified the habitats on site according to The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023).

Habitat Area/Length

The area or length of each habitat was calculated using qGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of a similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or lost (i.e. destroyed by proposed development).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Biodiversity Statutory Metric User Guide (Natural England, 2023).

Strategic Significance

Strategic significance was assigned for each habitat based upon a review of the following:

- Ecological value
- Function within the landscape
- Any site or habitat allocations under the London Borough of Hillingdon

2.2 Post Development Biodiversity Value

The post development BNG Calculation has not been calculated to date.

2.3 Limitations

There were no specific limitations to the assessment.

3.0 Results

3.1 Baseline Habitats

Table 1 details the baseline habitats present within the site along with their area/length, condition and strategic significance. A full condition assessment for each habitat (where relevant) is provided in Appendix 5a.

Table 1: Baseline Biodiversity Value

Habitat	Area (hectares)	Description	Condition Assessment	Strategic Significance
Developed land; sealed surface (building)	0.0024975	A temporary wooden office building (B1) located at the east corner of the site. The building is made from wood, with PVC windows and bitumen roof.	N/A	Low strategic significance
Other neutral grassland	0.0453619	The majority of the site is dominated by other neutral grassland. Grass species such as false oat (F), annual meadow grass (F), Yorkshire fog (D) and cocks' foot (D) were observed. Forbs present included French cranesbill (A), yarrow (A), broad leaf plantain (F), nettle (F), white clover (O), dandelion (O) and hawkbit (O).	Good	Medium strategic significance
Bramble scrub	0.0041463	Area of scrub along the northwest boundary with bramble as the dominant species. Other tall forbs were seen including field thistle (A) and nettle (F).	N/A	Medium strategic significance

Areas of Habitat

The baseline habitat value of the site is 0.62 units, comprising 0.60 units of other neutral grassland and 0.02 units of bramble scrub.

4.0 Recommendations to Deliver BNG

This is an assessment for a baseline of biodiversity at the site. A metric calculation for the proposed development is required to ascertain biodiversity net gain or loss.

5.0 Bibliography

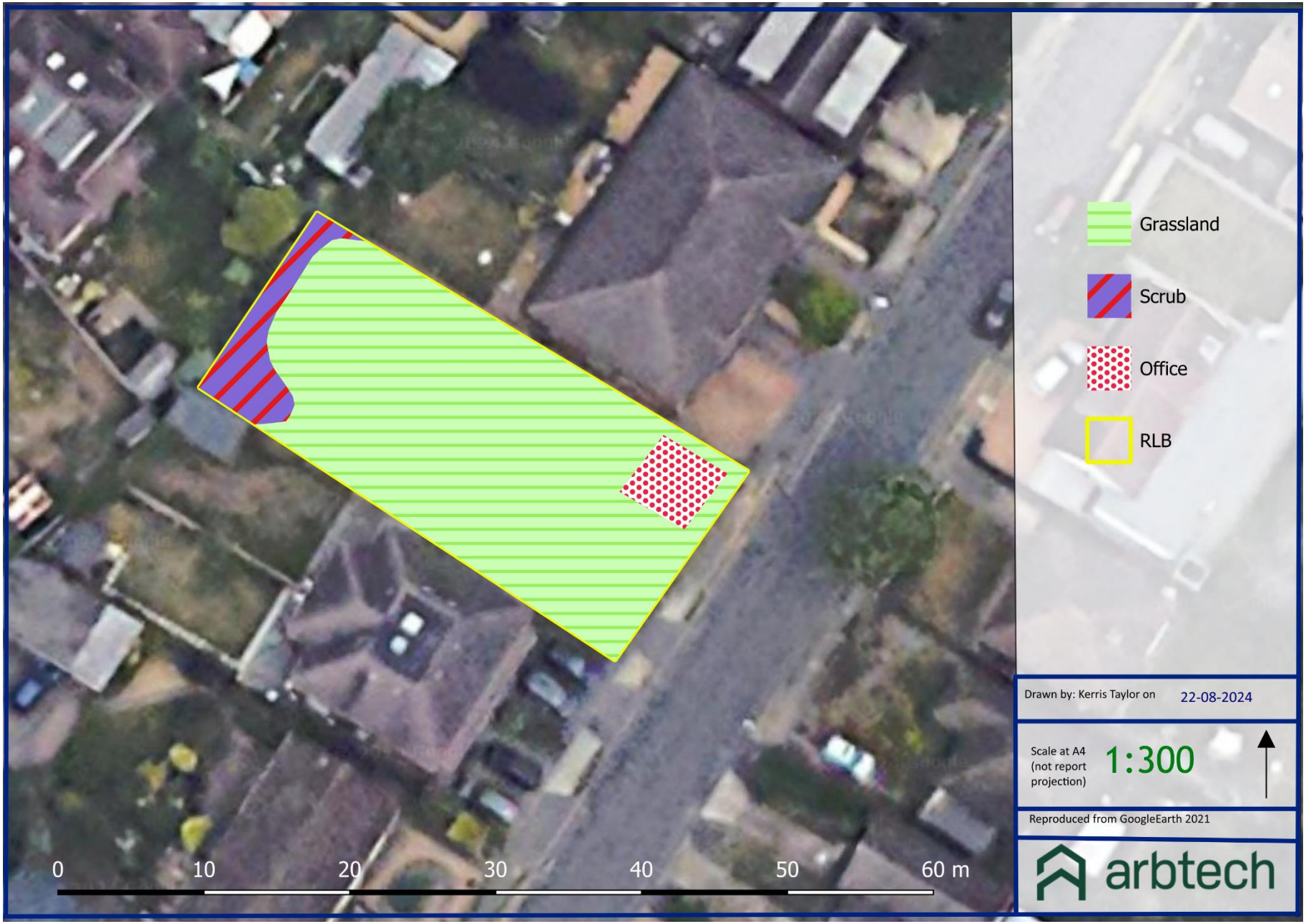
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- CIEEM-CIRIA-IEMA (2019) Biodiversity Net Gain – Good Practice Principles for Development.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey a technique for environmental audit. http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf
- Natural England (2023). The Biodiversity Statutory Metric (JP039).
- Natural England (2023). The Biodiversity Statutory Metric User Guide (JP039).
- Natural England (2023). The Biodiversity Statutory Metric Technical Annex 1 - Condition Assessment Sheets and Methodology (JP039).
- Natural England (2023). The Biodiversity Statutory Metric Technical Annex 2 – Technical Information (JP039).
- The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023)

Appendix 1: Proposed Development Plan

None available at time of writing

Appendix 2: Site Location Plan

Appendix 3: Baseline Habitat Plan



Appendix 4: Habitat Condition Assessment Sheets – Baseline

	Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Other neutral grassland	A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).[1] **Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**	Y	Species observed included false oat (F), annual meadow grass (F), Yorkshire fog (D) and cocks' foot (D), French cranesbill (A), yarrow (A), cinquefoil (F), dandelion (O), hawkbit (O), and herb Robert (O). >8 species per m2. >20% cover of broadleaved herbs.
	B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Y	Habitat parcel has been left unmanaged resulting in a variety of sward heights
	C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens[2].	Y	No evidence of rabbit warrens or any other patches of bare ground observed.
	D	Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) is less than 5%.	Y	No bracken observed on site.
	E	Combined cover of species indicative of suboptimal condition[3] and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species[4] (as listed on Schedule 9 of WCA[5]) are present, this criterion is automatically failed.	N	Storage of materials including breeze blocks, fencing panels and tarpaulin have caused damage to this habitat parcel.
	Additional Criterion - must be assessed for all non-acid grassland types			
	F	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). **Note - this criterion is essential for achieving Good condition for non-acid grassland types only.**	Y	Species observed included false oat (F), annual meadow grass (F), Yorkshire fog (D) and cocks' foot (D), French cranesbill (A), yarrow (A), cinquefoil (F), dandelion (O), hawkbit (O), and herb Robert (O).