



Biodiversity Net Gain Assessment – Part 1

Land at Harper Fold Road, Radcliffe, Manchester M26 3BX

Mr Mohammed Amirinejad

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Draft	1	Georgina Rennie BSc (Hons), MSc	05/12/2024
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Arbtech Consultant's Contact Details:

Georgina Rennie BSc (Hons) MSc
Consultant Ecologist
Email: georginarennie@arbtech.co.uk
<https://arbtech.co.uk>

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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 Mr Mohammed Amirinejad to undertake a Biodiversity Net Gain (BNG) Assessment at Land at Harper Fold Road, Radcliffe, Manchester M26 3BX (hereafter referred to as “the site”). The assessment was required to inform a planning application with the Bury Metropolitan Borough Council. The proposal is described as: Construction of commercial unit. (hereafter referred to as “the proposed development”).

The baseline habitat value of the site is 0.12 units, comprising of modified grassland.

In order to achieve a 10% biodiversity net gain, a minimum area-based habitat unit score of 0.14 will be required (baseline unit score of 0.12 + 10% of this value).

Recommendations include:

- Retaining and enhancing parcels of grassland located from modified grassland to other neutral grassland at a good condition.
- Planting additional trees onsite.

Contents

1.0 Introduction and Context	6
1.1 Background	6
1.2 Site Location, Geology and Landscape Context	6
1.3 BNG Informative	6
2.0 Methodology	7
2.1 Baseline Biodiversity Value	7
2.2 Limitations	7
3.0 Results	8
3.1 Baseline Habitats	8
3.2 Change in Biodiversity Value of the Site	8
4.0 Recommendations to Deliver BNG	9
4.1 Discussion	9
4.2 Landscaping	Error! Bookmark not defined.
5.0 Bibliography	10
Appendix 1: Proposed Development Plan	11
Appendix 2: Site Location Plan	12
Appendix 3: Baseline Habitat Plan	13
Appendix 4: Habitat Condition Assessment Sheets - Baseline	14
Appendix 5: Headline BNG Results	15

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Mr Mohammed Amirinejad to undertake a Biodiversity Net Gain (BNG) Assessment at Land at Harper Fold Road, Radcliffe, Manchester M26 3BX (hereafter referred to as “the site”). The assessment was required to inform a planning application with the Bury Metropolitan Borough Council. The proposal is described as: Construction of commercial unit. (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 Statutory Biodiversity Metric
- PEA (Preliminary Ecological Appraisal) Report for the site (Arbtech, 2024).

1.2 Site Location, Geology and Landscape Context

The survey site is centred on National Grid Reference SD 77454 07374 and has an area of approximately 0.068ha. The site comprises a strip of modified grassland, completely bound by roads and buildings. It is located within the town of Radcliffe, Greater Manchester. The wider landscape comprises further areas of built form, with pockets of amenity grassland also present. 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 Environment Act (2021) states biodiversity net gain is mandatory for sites over 0.5ha as of February 2024. The requirement for biodiversity net gain is also enshrined within the National Planning Policy Framework (NPPF, 2021). The DEFRA Statutory Biodiversity 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 Statutory Biodiversity 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 PEA (Arbtech, 2024). A baseline habitat plan is provided in Appendix 3.

Habitat Classification

The PEA 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).

Areas of scattered trees were calculated using the Tree Helper tool within the Statutory Biodiversity Metric. Class sizes for urban trees are set out in Table 8-1 of the Statutory Biodiversity Metric User Guide (Natural England, 2023).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Statutory Biodiversity 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 Local Plan Name

2.2 Limitations

No limitations

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 4.

Table 1: Baseline Biodiversity Value

Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
u1b6 – Other developed land	0.00361 ha	There is a small section of hardstanding within the site, utilised for access to electrical substations within the site. These areas comprise tarmac.	N/A	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
g4 – Modified grassland	0.06189 ha	The site is dominated by an area of modified grassland. The site is regularly utilised by residents of the town between adjacent roads and as such, is subject to regular disturbance. Although the grassland had not been mown for a number of months at the time of the survey, due to routine trampling, some areas of the grassland were shorter than others. The area has served as a pocket of amenity grassland for the positioning of an electrical substation. Species composition of the grassland is poor, being dominated by perennial ryegrass, with an extremely limited herbaceous layer.	Poor.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).

3.2 Change in Biodiversity Value of the Site

Full details are provided in the Defra Statutory Biodiversity Metric. The headline results are presented in Appendix 5.

Areas of Habitat

The baseline habitat value of the site is 0.12 units, comprising of modified grassland.

4.0 Recommendations to Deliver BNG

4.1 Discussion

In order to achieve a 10% biodiversity net gain, a minimum area-based habitat unit score of 0.14 will be required (baseline unit score of 0.12 + 10% of this value).

Recommendations include:

- Retaining and enhancing parcels of grassland located from modified grassland to other neutral grassland at a good condition.
 - Areas of other neutral grassland **must** be fenced off, to minimise damage through regular footfall, as this reduces the likelihood of achieving this habitat type.
 - Other neutral grassland will contain **at least** 10 species of grasses, sedges and wildflowers per m². Species to consider include Crested dog's tail, Sweet vernal grass, Fescues, Small blue-green sedges, Autumn hawkbit, yellow rattle, Common meadow-rue, Water mint, Adder's tongue, rough hawkbit, Meadowsweet, Ox-eye daisy.
 - Management will be required to prevent non-target dominant plant species taking over the habitat parcel. As such, access to the habitat parcel must be achieved from the road or similar, **without** encroaching on the private gardens of the proposed dwelling, for external management to take place.
 - Other neutral grassland should not contain any invasive non-native species, as listed on Schedule 9 of the Wildlife and Countryside Act (1981).
- Planting additional trees onsite. When planting individual trees within the site.
 - All trees planted on site will be located **outside** of vegetated gardens, as instructed by the BNG user guide (Natural England, 2023). It should be noted that any trees planted within scrub habitat should not exceed 5m in height.
 - Trees planted on site will require protection from damage caused by human activity, including poor management and vandalism.
 - Trees should be planted in areas with enough space for the canopy growth to reach a minimum of 75% of its expected area, relative to the age, height and species of the tree. Additionally, these trees will not be subject to regular pruning.
 - Trees should be native to achieve a moderate condition.

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 Statutory Biodiversity Metric (JP039).
- Natural England (2023). The Statutory Biodiversity Metric User Guide (JP039).
- Natural England (2023). The Statutory Biodiversity Metric Technical Annex 1 - Condition Assessment Sheets and Methodology (JP039).
- Natural England (2023). The Statutory Biodiversity Metric Technical Annex 2 – Technical Information (JP039).
- The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023)

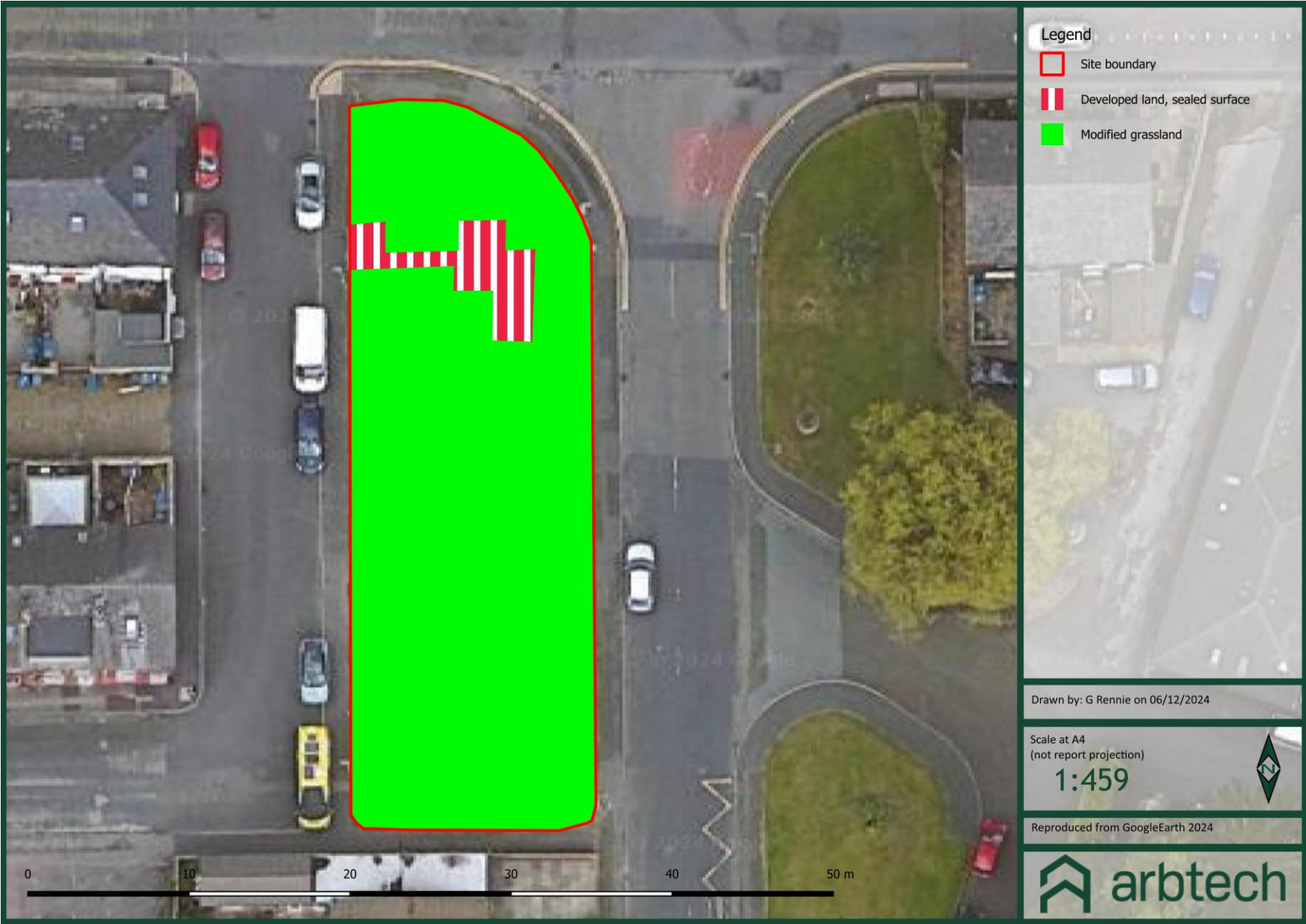
Appendix 1: Proposed Development Plan

N/A

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)
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition.	No	
	Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.		
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present).	Yes	
	Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.		
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	No	
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Yes	
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Yes	
Essential criterion achieved (Yes or No)		No	
Number of criteria passed		Three	
Condition Assessment Result (out of 7 criteria)		Condition Assessment Score	Score Achieved x/✓
Passes 6 or 7 criteria including passing essential criterion A		Good (3)	
Passes 4 or 5 criteria including passing essential criterion A		Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)		Poor (1)	Yes

Appendix 5: Headline BNG Results

The Defra Statutory Biodiversity Metric is provided as a separate excel spreadsheet.

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-0.12		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-100.00%	Total net gain achieved is less than target set ▲	
	Hedgerow units	0.00%		
	Watercourse units	0.00%		
Trading rules satisfied?	No - Check Trading Summaries ▲			
Area created must match area lost for both onsite and offsite ▲				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	0.12	0.14	0.14
Hedgerow units	10.00%	0.00	0.00	0.00
Watercourse units	10.00%	0.00	0.00	0.00
				No additional hedgerow units required to meet target ✓
				No additional watercourse units required to meet target ✓