

Biodiversity Net Gain Assessment

LAND OF HOLLY OAK GARDENS, HEYWOOD,
ROCHDALE

Prepared for

James Campbell Associates Ltd.

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Version 03

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Project Details	
Report title	Biodiversity Net Gain Assessment
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Grid reference	SD 853 103
Field Survey Date	5 th January 2026 & 23 rd July 2026 to inspect for invasive plant species.
Report composed by	Miranda Cowan Ecology Limited.
Client	James Campbell Associates Ltd.

Document History and Status					
Revision	Date	Description	By	Review	Approved
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03	26/08/2026	Update post LPA comment regarding seasonal survey constraint. See section 2.4 and 3.2.	Miranda Cowan Principal Ecologist	R. Able Technical Support.	R. Able Technical Support.

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Data supplied by the client is assumed as correct. No responsibility can be accepted by Miranda Cowan Ecology Ltd. for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

Field surveys have been carried out, these have been restricted to a level of detail required to achieve the stated brief of the work. No part of this report may be copied or duplicated without express permission of Miranda Cowan Ecology Ltd. and the party for whom it was prepared.

The survey and reporting have been completed in accordance with the CIEEM Professional Code of Conduct, with the aim of upholding their objectives and the reputation of the profession.

Contents

Contents.....	3
1. Introduction	4
1.1 Background	4
1.2 Scope of Report	4
1.3 Legislation	4
1.4 Defining Biodiversity Net Gain	5
1.5 Competency	5
2. Methodology	6
2.1 Desk-top Assessment	6
2.2 Field Survey	6
2.3 Strategic Significance.....	6
2.4 Survey Limitations.....	6
3. Biodiversity Net Gain	7
3.1 Designations and Biodiversity Allocations	7
3.2 Habitat Baseline	7
3.3 Habitat Loss and Retention.....	12
4. Biodiversity Creation and Enhancement.....	13
4.1 Habitat Retention	13
4.2 Biodiversity Headline Results	14
5. Conclusions.....	15
6. Appendix A - Figures	16

1. Introduction

1.1 Background

Miranda Cowan Ecology Ltd was commissioned by James Campbell Associates Ltd (the 'client') to carry out a Biodiversity Net Gain (BNG) Assessment at land off Holly Oak Gardens, Heywood, Rochdale (the 'Site' hereafter). The Site is centred on Ordnance Survey National Grid Reference (OSNGR) SD 853 103, **Figure 1, Appendix A**.

The Site equates to c.0.2 ha and is located within an urban context, characterised by g4 Modified grassland, u1b Developed land; sealed surface, h3d Bramble scrub, h2b Non-native and ornamental hedgerow and Urban trees.

The Client seeks planning approval for the development of 4 residential dwellings, with associated parking and vegetated gardens. The design has retained existing Site habitats where possible.

1.2 Scope of Report

This report outlines and interprets the outcome of the Biodiversity Impact Assessment calculation delivered through the Statutory Metric¹ (the Metric hereafter). The Metric is based on the Proposed hard and Soft Landscape Plan, 411-001, Jan26.

This report is accompanied with the Metric² and UK Habitat Condition Assessment Sheets³. In combination, these documents have provided the basis for establishing the Sites baseline biodiversity habitat units and habitat loss / retention relative to the proposal design.

1.3 Legislation

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% 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

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.

¹ Biodiversity Defra Statutory Metric - Calculation tool (November 2024)

² Miranda Cowan Ecology_HollyOakGardens_Statutory_Metric _1.0.4_17.02.26_V02

³ Miranda Cowan Ecology_ HollyOakGardens _Stat_Bio_Metric_Condition_Ass_07-01-2026(01)

1.4 Defining Biodiversity Net Gain

Biodiversity Net Gain (BNG) is defined as a specific, quantifiable outcome of project activities that deliver demonstrable benefits for biodiversity compared to the baseline situation. Achieving BNG means that a project's activities (i.e., the development) leaves biodiversity in a better state than before. It is also an approach where developers work with local governments, wildlife groups, landowners and other stakeholders in order to support their priorities for nature conservation.

This BNG assessment compares the biodiversity value of Sites baseline habitats with those habitats anticipated to be present following completion of the Proposed Development.

The aim is to achieve the target mandatory net gain of 10% through habitat creation and enhancement on Site. Where on-site net gain cannot be achieved, provision for off-site biodiversity units is calculated.

1.5 Competency

A Site survey (5th of January 2026) and the BNG assessment have been completed by Miranda Cowan Ecology Limited (Full member of MCIEEM and FISC 4) in accordance with the professional standards as defined by the Chartered Institute of Ecology and Environmental Management^{4,5}.

⁴ Chartered Institute of Ecology and Environmental Management (2024). Competency Framework, version 3.0.

⁵ CIEEM (2024). Code of Professional Conduct.

2. Methodology

2.1 Desk-top Assessment

The following data sources have been used to complete this BNG assessment:

- Google Earth[®] aerial photography
- Magic Map - <https://magic.defra.gov.uk>
- Rochdale Borough Unitary Development Plan (adopted June 2006) <https://www.cartogold.co.uk/rochdale/rochdale.htm> to identify land allocation relative to designation / wildlife corridors within or directly linked to the Site.
- Greater Manchester Nature Network Map: <https://storymaps.arcgis.com> to identify Core Local Nature Sites and Nature Recovery Opportunity Areas.
- A local Nature Recovery Strategy for Greater Manchester published 2005, sourced <https://storymaps.arcgis.com>
- The Department for Environment Food & Rural Affairs (DEFRA) Statutory Biodiversity Metric User Guide, version 3rd July 2025.

2.2 Field Survey

A field survey completed on the 5th of January 2026 involved the classification and assessment of on-site habitats underpinned by the UK Habitat Classification System⁶. Habitats were mapped (**Figure 1, Appendix A**) and a condition assessment was undertaken using the condition assessment tools provided with the Metric⁷.

Urban tree areas were calculated using the Metric 'Urban Tree Helper' which requires a size ('small', 'medium' and 'large') to be assigned to each tree.

Baseline habitats have been mapped using a 'Minimum Mappable Unit' area of 25m² applied in line with UK Hab methodology. This will not significantly affect the BNG calculations undertaken as part of this assessment.

2.3 Strategic Significance

The site falls within the Local Nature Recovery Strategy (LNRS) for Greater Manchester, with Strategic Significance informed by Core local Nature Sites, Nature Recovery Opportunity Areas and the presence of UK Priority habitats. Strategic significance was also influenced by a Site based condition assessment and professional judgement

2.4 Survey Limitations

As the BNG field survey was completed during the winter months (5th of January 2026), Rochdale Council requested that that botanical species may have been missed along with the presence of any non-native invasive plant species.

In response to this query, a follow-up field survey was completed on the 23rd of July within the optimal survey season to confirm the presence of additional botanical species and to search for non-native invasive plant species. This additional survey visit meant that seasonal limitations were overcome.

It should be noted that where early colonisation of invasive species is present, due to the impenetrable character of bramble scrub, there is a risk of species being overlooked.

⁶ UK Hab Ltd (2023). UK Habitat Classification V2.0 (at <https://www.ukhab.org>)

⁷ The Statutory Biodiversity Metric – Technical Annex 1: Condition Assessment Sheets and Methodology. July 2024 (v1.0.2)

3. Biodiversity Net Gain

3.1 Designations and Biodiversity Allocations

Due to the urban context of the Site, there were no designations or biodiversity land allocation within or functionally linked to the Site.

3.2 Habitat Baseline

Table 3.1 details the Site baseline habitats, which are further shown as **Figure 1**. The full UK Condition Assessment Sheets⁸ should be read in conjunction with the findings presented in **Table 3.1**.

The additional site visit completed on the 23rd of July 2026 confirmed absence of invasive plant species, with bramble scrub being particularly dense and g4 Modified grassland established into dense tussock with creeping thistle *Cirsium arvense* and common nettle *Urtica dioica* colonisation.

Table 3.1: Site habitats and UK Condition

u1b Developed land; sealed surface

Baseline: relates to the tarmac road of Holly Oak Road leading from Egerton Street. **Condition:** This habitat feature is not subject to a Condition Assessment Sheet.

Plate 1: View looking north up Holly Oak Road.



Plate 2: View looking south of Holly Oak Road.

⁸ Miranda Cowan Ecology_HollyOakGardens_Stat_Bio_Metric_Condition_Ass_07-01-2026_V01



g4 Modified grassland – 16 Tall forbs

Baseline: Primary baseline grassland characterised by cock's-foot *Dactylis glomerata*, perennial rye-grass *Lolium perenne* and false oat-grass *Arrhenatherum elatius*. Indicators of all forbs are strongly present and likely to dominate during summer growth. Species included common Nettle *Urtica dioica*, rosebay willowherb *Chamaenerion angustifolium*, broad-leaved willowherb *Epilobium montanum* and common Ragwort *Jacobaea vulgaris*. There was early evidence of succession towards scrub habitat, with the presence of raspberry *Rubus idaeus*, bramble *Rubus fruticosus* agg., and saplings of Sycamore *Acer pseudoplatanus*, Holly *Ilex aquifolium* and Rowan *Sorbus aucuparia*.

Condition: UK Habitat Poor Condition due to low species diversity with evidence of early successional species.

Plate 3a and b: Overview of Parcel G2, January 2026.



Plate 3b: Overview of Parcel G2, July 2026.



H3d Bramble scrub

Baseline: 2-3m tall bramble thicket.

Condition: Not subject to a UK Habitat Condition Assessment.

Plate 4a: bramble scrub, January 2026.



Plate 4b: bramble scrub, July 2026.



200 Urban trees

Baseline: urban trees numbered according to the Proposal plan and assumed as mapped as part of an Arboricultural Impact Assessment. Trees 18 and 19 are sycamore with the site otherwise dominated by common lime *Tilia x europaea*.

Condition: Common lime trees 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 13 Good Condition and sycamore trees 18 and 19 Moderate Condition.

Plate 5: Trees within grassland Parcel G2.

Plate 6: Trees within grassland Parcel G1.



Table 3.2 and **3.3** summarises the extent (ha) of baseline habitats and hedgerows prior to the commencement of the development.

Table 3.2: Biodiversity Net Gain Baseline Habitat Area and Units

UK Hab Code	Primary Habitat (name)	Parcel ref	Area (ha)	Condition	Units
g4 (16)	Modified grassland – 16 Tall forbs	G1, G2	0.1102	Poor	0.22
h3d	Bramble scrub	S1, S2	0.03493	NA	0.14

UK Hab Code	Primary Habitat (name)	Parcel ref	Area (ha)	Condition	Units
u1b	Urban developed land; sealed surface	-	0.05504	NA	0
200	Urban tree - sycamore	18, 19	0.0326	Moderate	0.26
200	Urban tree – common lime	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13	0.1954	Good	2.34
Total (including trees)					2.97

Table 3.3: Biodiversity Net Gain Baseline Habitat Hedgerow Length and Units

UK Hab Code	Primary Habitat (name)	Parcel ref	Length (km)	Condition	Units
h2b	Non-native and ornamental hedgerow	H1	0.231	Poor	0.02
h2b	Non-native and ornamental hedgerow	H2	0.0346	Poor	0.03
Total					0.06

3.3 Habitat Loss and Retention

Habitats and hedgerows retained and lost because of the development are summarised in **Table 3.4 and 3.5**.

Table 3.4: Summary of habitat and unit lost because of the development

UK Hab Code	Primary Habitat (name)	Parcel ref	Habitat Loss	Units Lost
g4 (16)	Modified grassland – 16 Tall forbs	G1, G2	0.11	0.22
h3d	Bramble scrub	S1, S2	0.03	0.14
u1b	Urban developed land; sealed surface	-	0.06	0
200	Urban tree	18, 19	0	0
200	Urban tree	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13	0	0
Total (including trees)			0.20	0.36

Table 3.5: Summary of hedgerow unit lost because of the development

UK Hab Code	Primary Habitat (name)	Parcel ref	Length lost	Units Lost
h2b	Non-native and ornamental hedgerow	H1	0.02	0.02
h2b	Non-native and ornamental hedgerow	H2	0.03	0.03
Total (including trees)			0.06	0.06

4. Biodiversity Creation and Enhancement

4.1 Habitat Retention

Figure 2 and Table 4.1 shows habitats to be created on-Site will need to be managed by an appointed land management organisation. Whilst there are small delivery of units relating to gardens, it is acknowledged that the management and maintenance of private land can not be taken forward into a Habitat Management and Maintenance Plan (HMMP). The HMMP is a 30-year binding document that will need to be secured through a Biodiversity Net Gain Plan (post permission document). Key principles of habitat creation include:

- gc3 Other neutral grassland to be created with a Emorsgate EM2 seed mix and mown annually in late summer / autumn with all cut arisings removed from Site. Paths will be cut though the grassland as contour mowing allowing for variation of sward structure. The paths should not exceed 1m width.
- G4 Modified grassland to be applied with the same Emorsgate EM2 seed mix, although will be subject to a mowing regime.
- h3h mixed scrub to be encouraged to develop to a mature dense structure with sympathetic pruning and replacement planting for any failures.
- Urban trees to be managed in public space through sympathetic pruning and replacement of any failures.
- Native planted hedgerows to be sympathetically pruned to establish a dense structure, optimising a minimum height and width of 1.5m

Table 4.1 Habitats to be created and enhanced as part of the development.

ACTION	Baseline Habitat Type	Proposed Habitat Type	Target Condition	Units Delivered
Creation (habitats)	g4 Modified grassland (Poor)	gc3 Other neutral grassland	Moderate	0.44
	u1b Developed land; sealed surface	g4 Modified grassland	Moderate	0.03
	h3h Bramble scrub & g4 Modified grassland (Poor)	h3h Mixed scrub	Moderate	0.02
	h3h Bramble scrub	Vegetated garden	NA	0.05
	g4 Modified grassland (Poor) & h3h Bramble scrub	Introduced scrub	NA	0.02
	g4 Modified grassland (Poor)	200 Urban tree (5)	Moderate	0.06
Total (including trees)				0.62
Creation (hedgerow)	h2b non-native and ornamental hedgerow.	Native hedgerow around Site boundary (excluding gardens).	Moderate	0.31
Total (including trees)				0.31

4.2 Biodiversity Headline Results

The outcome of the proposed development results in an 8.80% / -0.04 unit deficit for habitats, meaning the 10% mandatory gain has not been met. In addition, the Trading Rules have not been satisfied for the medium distinctive habitat heathland and scrub (bramble) or low distinctive modified grassland habitat.

For hedgerows the Trading Rules have been satisfied due to a delivery of 433.13% / 0 deficit unit value for hedgerows.

Holly Oak Gardens		Return to results menu		
Headline Results				
Scroll down for final results				
On-site baseline	Area habitat units	2.97		
	Hedgerow units	0.06		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	3.23		
	Hedgerow units	0.31		
	Watercourse units	0.00		
On-site net change (units & percentage)	Area habitat units	0.26		
	Hedgerow units	0.25		
	Watercourse units	0.00		
Off-site baseline	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	0.26		
	Hedgerow units	0.25		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	0.26		
	Hedgerow units	0.25		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	8.80%		
	Hedgerow units	433.13%		
	Watercourse units	0.00%		
Trading rules satisfied?		No - Check Trading Summaries		
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Area habitat units	10.00%	2.97	3.26	0.04
Hedgerow units	10.00%	0.06	0.06	0.00
Watercourse units	10.00%	0.00	0.00	0.00

5. Conclusions

The BNG assessment relative to the proposed development does not meet the mandatory 10% BNG requirements, therefore, the Client should seek delivery of BNG off-site through the purchase of biodiversity units. The purchased units available from a range of organisations would need to focus on grassland and mixed scrub as this is where the BNG assessment has identified the Trading Rules to have not been met.

For all on-Site habitat creation and subject to planning permission being granted, a 30-year Habitat Management and Maintenance Plan (HMMP) will be required, with its delivery secured through a Biodiversity Net Gain Plan (post permission document).

6. Appendix A - Figures



