

Biodiversity Net Gain Assessment

Land at Baytree Lane

Middleton, Manchester

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Prepared for: J Walker Homes Limited

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- The Statutory Biodiversity Metric – Baytree Lane excel sheet



EXECUTIVE SUMMARY

- On 31st January 2024 a Preliminary Ecological Appraisal was undertaken on land at Baytree Lane, Middleton.
- The site comprises an area of tarmac with modified grassland and sparse ruderal vegetation around the boundaries. There is also a short length of privet hedgerow.
- The Statutory Biodiversity Metric shows that following development there will be an overall net gain in biodiversity. The creation of habitats, including modified grassland and native species hedgerow will result in a 2452.78% increase in net gain of area/habitat units and a 175.45% increase in linear/hedgerow units.

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1. Introduction

1.1 Application Site

1.1.1 This report details a Biodiversity Net Gain Assessment of land at Baytree Lane, Middleton, Manchester, M24 2EB. Ordnance Survey grid reference (centre of site): SD88550601

1.1.2 J Walker Homes Limited commissioned Verity Webster Ltd to undertake a Biodiversity Net Gain Assessment in order to inform the proposals for the site.

1.2 Objectives

1.2.1 The objectives of the Biodiversity Net Gain Assessment are to determine:

- Potential for enhancement or compensation (offsetting) on the site for protected species, habitats of conservation interest and overall biodiversity with the aim of achieving 10% net gain in biodiversity.

1.3 Proposals

1.3.1 The proposals for the site comprise the construction of five dwellings with associated landscape and parking.

1.4 Ecologist

1.4.1 The Ecological Assessment was undertaken by Verity Webster. Verity is a Chartered Ecologist and a full member of the Chartered Institute of Ecology and Environmental Management.

1.4.2 Verity has worked as an ecological consultant since 2007. She has undertaken Ecological Assessments and protected species surveys for a large variety of projects and schemes, producing the required impact assessment and subsequent mitigation schemes and method statements when necessary.



2. Site Location and Description

2.1 Site Location

- 2.1.1 The survey site is located in a built-up residential area of Mills Hill in Middleton. Residential housing surrounds the site. Mills Hill Railway Station lies approximately 160m to the east of the site. The railway line runs north to south, creating a habitat corridor through the built-up landscape.
- 2.1.2 Open space lies approximately 90m to the north, which extends into open countryside beyond the railway line to the northeast. This open landscape encompassing a matrix of woodland, grassland, scattered waterbodies and waterways. There are also smaller scattered plots of green space to the southwest comprising recreation grounds and gardens.
- 2.1.3 The River Irk runs east to west approximately 190m to the north of the site. The Rochdale Canal lies approximately 300m to the east at the closest point, weaving north to south. Wince Brook lies approximately 900m to the southwest, weaving west to southeast



Figure 1: Ordnance survey map showing the location of the proposed development site.





Figure 2: Aerial image showing the proposed development site and immediate surroundings





2.2 Site Description

- 2.2.1 The survey site comprises an area of tarmac with modified grassland and ruderal vegetation around the boundaries.
- 2.2.2 The modified grassland is limited to an approximate 1m strip along the western boundary. Small patches under 1m² of grassland are present along the northern and southern boundaries and are only distinguishable from the sparse ruderal vegetation due to the presence of dense grasses.
- 2.2.3 The modified grassland is composed of dominant false oat grass (*Arrhenatherum elatius*), occasional Yorkshire fog (*Holcus lanatus*) and annual meadow-grass (*Poa annua*) and rare fescue (*Festuca* sp.). Herbs comprise willowherb (*Epilobium* sp.), creeping buttercup (*Ranunculus repens*), dandelion (*Taraxacum* agg.) and broad-leaved dock (*Rumex obtusifolius*). Bramble (*Rubus fruticosus* agg.) is sparse in patches. The classification of modified grassland is due to the species-poor nature of the sward.
- 2.2.4 Ruderal plant species include mugwort (*Artemisia vulgaris*), willowherb species (*Epilobium* sp.), wood avens (*Geum urbanum*) and dandelion. Sycamore (*Acer pseudoplatanus*) saplings are infrequent.
- 2.2.5 There is a tall unkempt privet (*Ligustrum* sp.) hedge along the west end of the northern boundary which supports ivy (*Hedera helix*). There is a false acacia (*Robinia pseudoacacia*) close to the northeast corner of the site, but not within the survey area.
- 2.2.6 There are no buildings on site. See Figure 3.
- 2.2.7 The UK Habitat codes for the site are:
- u1b Developed land; sealed surface.
Secondary code 81: Ruderal/ephemeral
 - g4 Modified grassland
 - h2b Non-native hedgerow



Looking south across the site



Looking east along the southern boundary



Looking north along the western boundary



The tall privet hedge on the northern boundary



The western boundary



The southern boundary



Figure 3: The Survey Site





3. Legislation

3.1 Planning Policy and Legislation

- 3.1.1 In England, biodiversity net gain is required under a statutory framework introduced by Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021). This is referred to as biodiversity net gain in Planning Practice Guidance to distinguish it from other or more general biodiversity gains.
- 3.1.2 Under the statutory framework for biodiversity net gain, every grant of planning permission is deemed to have been granted subject to a general biodiversity gain condition to secure the biodiversity gain objective. This objective is to deliver at least a 10% increase in relation to the pre-development biodiversity value of the development granted permission. This increase can be achieved through onsite biodiversity gains, registered offsite biodiversity gains or statutory biodiversity credits (Gov.Uk Biodiversity Net Gain, 2023).
- 3.1.3 Under the NERC Act 2006, planning authorities are obliged to make sure that they have all the information on the presence of protected species on site before they make a decision on the planning permission.
- 3.1.4 The National Planning Policy Framework (NPPF, 2021) encourages Local Planning Authorities to conserve and enhance biodiversity.

Chapter 15, Para 180 of NPPF states: *"The planning system should contribute to and enhance the natural and local environment by:*

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils....*
- 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".*

Para 181 states: *"Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."*

Para 185 identifies that plans should do the following to protect and enhance biodiversity and geodiversity:

- 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 stepping stones 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 peruse opportunities for securing measurable net gains for biodiversity."*

Para 186 states that *"when determining planning applications, local authorities should apply the following principles:*

- a) if significant harm to biodiversity from a development cannot be avoided...,adequately mitigated, or, as a last resort compensated for, then planning permission should be refused"*

- 3.1.5 The local planning authority has a responsibility, therefore, to obtain all information regarding the potential for protected species on a site prior to making a decision about a proposal.



4. Methodology

4.1 Biodiversity Net Gain Assessment

- 4.1.1 Biodiversity Offsetting was developed by Defra. The pilots of the study were first published in 2012.
- 4.1.2 The Biodiversity Calculator is a system created by Defra to quantify change in biodiversity of a site in biodiversity units.
- 4.1.3 *The Biodiversity Offsetting Pilots: Guidance for Developers* (Defra, 2012) details the original metric for calculating biodiversity loss or gain as a result of development proposal.
- 4.1.4 *The Statutory Metric* (Gov.UK Statutory Biodiversity Metric Tool, 2023) and the associated guidance was used to assess the habitat condition and calculate potential change in biodiversity within the survey site.
- 4.1.5 The calculation of change in biodiversity units has been based upon a proposed site plan produced by nicol thomas.



5. Biodiversity Net Gain Assessment

5.1 Baseline condition and potential impacts on Biodiversity

Offsetting and the Biodiversity Calculator

5.1.1 The baseline condition of the habitat and the predicted change as a result of the proposals has been assessed with the use of the Biodiversity Offset principals.

5.1.2 Biodiversity offsetting principal: What is it?

“Using the biodiversity offsetting approach means than an offset provider delivers quantifiable amount of biodiversity benefit to offset the loss of the biodiversity resulting from the development. The losses and gains are measured in the same way, even if the habitats concerned are different. In the biodiversity offsetting pilot, the measurement is done in ‘**biodiversity units**’, which are the product of the **size of an area**, **the distinctiveness** and **the condition** of the habitat it comprises. The assessment of biodiversity units lost and gained can be calculated” (Defra, 2012).

5.1.3 The Biodiversity Calculator is a system created by Defra to quantify change in biodiversity of a site in biodiversity units. The current calculator is known as the Statutory Biodiversity Metric (Gov.UK Statutory Biodiversity Metric Tool, 2023).

5.1.4 This quantitative assessment will be considered in relation to the other qualitative ecological functions of the site in order to assess the impact (i.e. functionality for protected species), but is a useful tool to show predicted or potential loss of habitat, change in condition and enhancement (net gain).

Habitat Types

5.1.5 There are three baseline habitat types (UK Habitat classification) on site that will be impacted by the works:

- **u1b Developed land; sealed surface.Secondary code 81: Ruderal/ephemeral**
- **g4 Modified grassland**
- **h2b Non-native hedgerow**

Distinctiveness of the Habitat

5.1.6 Under the Biodiversity Calculator principals each habitat is categorised into a distinctiveness band.

5.1.7 The distinctiveness of the habitat is based upon parameters such as species richness, diversity, rarity (at local, regional, national and international scales) and the degree to which a habitat supports species rarely found in other habitats (Treweek *et al*, 2010)

- **Modified grassland has LOW distinctiveness** as the habitat is common, widespread and of low conservation value.



- **Developed land; sealed surface has VERY LOW distinctiveness.**
- **Non-native ornamental hedgerow has VERY LOW distinctiveness** due to the poor functionality for wildlife.

Habitat Condition Assessment

5.1.8 The condition of each habitat can be categorised as low, moderate or good and is based upon the Habitat Condition Assessment Sheets within the Statutory Biodiversity Metric. Non-native hedgerow does not require a condition assessment.

Modified Grassland

5.1.9 The following table (Table 5a - Condition Assessment Sheets) indicates the condition assessment of modified grassland.

5.1.10 The grassland has five passes, indicating that it is of 'moderate' Condition.



Table 5A: Grassland Condition Assessment

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
UK Habitat Classification (UKHab) Habitat Type			
Grassland - Modified grassland			
On-site or off-site, site name and location	Baytree Lane	Survey date and Surveyor name	31-Jan-24
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference	SD88550601	Habitat parcel reference	
Habitat Description			
ukhab – UK Habitat Classification			
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. 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.	N	The species diversity is poor.	
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.	Y	Yes, although small in areas, there is a variation in sward height	
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). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y		
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.	Y		
E Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	N		
F Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y		
G There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Y		
Essential criterion achieved (Yes or No)			
Number of criteria passed			
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)	Y	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)		
Suggested enhancement interventions to improve condition score			
NA			



5.2 Achieving Biodiversity Net Gain (Biodiversity Offsetting)

- 5.2.1 The EU is committed to halt the loss of biodiversity and the degradation of ecosystem services by 2020. The Biodiversity Strategy sets out 6 targets and 20 specific actions geared towards this overall objective. Action 7 is to ensure no net loss of biodiversity and ecosystem services.
- 5.2.2 The 'mitigation hierarchy' is included with current planning policy, aiming to halt the loss of biodiversity. The National Planning Policy Framework, consolidating planning guidance states that *'if significant harm cannot be avoided, adequately mitigated, or as a last resort, compensated for, planning permission should be refused'*.
- 5.2.3 Defra's biodiversity offsetting pilot was developed to address this requirement and ensure development, economic growth and biodiversity conservation are compatible (British Ecological Society, 2013)
- 5.2.4 Biodiversity net gain, as a good practice principal, has been developed by Ciria, CIEEM and IEMA (2016). At the very least developments should aim for no net loss as part of the proposals.
- 5.2.5 The Statutory Biodiversity Metric shows the distinctiveness and condition of the habitats on site at baseline (prior to development), with associated Biodiversity Units for area habitat and linear hedgerow.
- 5.2.6 The area habitats on site will be lost as a result of the proposals. The non-native privet hedge will be retained. New area habitats will be created.
- 5.2.7 The Headline Results in the Statutory Biodiversity Metric Tool shows the overall net change in Biodiversity Units as a result of the development and creation of new habitat.

Area Habitats created

- 5.2.8 All new habitats will be created with an aim to reach 'good' condition. However, due to the nature of habitat creation, the modified grassland and individual trees have been assessed with an assumption of poor condition as a precaution.
- 5.2.9 The trees planted will be native species.
- 5.2.10 The following habitats are to be created on site:

- **Modified grassland**
- **Urban tree**

Hedgerow (linear) habitats created

- 5.2.11 Creation of 10m of new hedgerow will ensure a net gain in hedgerow units. A native species rich hedgerow has medium distinctiveness. The desirable condition is 'good', but as a precaution, 'poor' condition has been calculated in the metric. The creation of linear habitat will improve the heterogeneity of the site for wildlife. A hedgerow would provide opportunities for nesting and foraging birds, foraging bats, amphibians and small mammals, as well as providing a wildlife corridor. Hedgerows are a Habitat of Principle Importance under the NERC Act, 2006.



Percentage Change in Biodiversity Units

5.2.12 The Statutory Biodiversity Metric Tool shows there will be a 2452.78% increase in area/habitat Biodiversity Units, a 175.45% increase in linear hedgerow units.

5.2.13 This reflects the significant change in baseline.

5.3 Biodiversity Net Gain Conclusion

5.3.1 If the proposals are implemented it is evident that there will be an overall net gain in biodiversity at Baytree Lane.

5.3.2 The new habitats will take between 1-10 years to establish, however, and so it will be necessary for the areas to be appropriately managed during this time.



6. References

- Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2023). UK Habitat Classification V2.0 – Advance publication of selected Habitat Definitions at <http://ukhab.org>
- Gov.Uk Biodiversity Net Gain (2023). Draft biodiversity net gain planning practice guidance. <https://www.gov.uk/guidance/draft-biodiversity-net-gain-planning-practice-guidance#about-biodiversity-gain>
- Gov.UK Statutory Biodiversity Metric Tools (2023). Statutory biodiversity metric tools and guides. <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>
- Treweek, J., Butcher, B., and Temple, H. (2010). Biodiversity offsets: possible methods for measuring biodiversity losses and gains for use in the UK. [file:///Users/veritywebster/Downloads/Biodiversity Offsets Treweek et al. 08 08 10-librecopy.pdf](file:///Users/veritywebster/Downloads/Biodiversity%20Offsets%20Treweek%20et%20al.%2008%2008%2010-librecopy.pdf)
- UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)