



Glossop Wren's Nest (8325)

**Biodiversity Net Gain Design Phase
Report**

On Behalf of McDonalds Restaurants

Version 3 | May 2023

Document Control

Version	Date	Produced by	Reviewed by	Notes/ Metric
V1	6 th March 2023	Alex Jessop MSc, Ecologist	Cyrise Weaire BSc (Hons) Director, M:CIEEM	Small Sites Metric 3.1
V2	30 th March 2023	Alex Jessop MSc, Ecologist	-	
V3	April 2023	Sammi Smith MSc, Assistant Ecologist	Cyrise Weaire BSc (Hons) Director, M:CIEEM	Update landscape plan and amendments.

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This report does not purport to provide legal advice. This report provides a summary of preliminary Biodiversity Net Gain (BNG) calculations pre and post development of the Site.

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Executive Summary

Biodiversity Net Gain (BNG) Calculations were undertaken by Practical Ecology Ltd to assess the biodiversity impacts of the proposed development at the former Wren's Nest Public House, Glossop, on both area and linear habitats on site for Phase 1 of the proposed development. The calculations were performed using DEFRA Small Sites Biodiversity Metric 3.1ⁱ and are based on the proposed site plan for the Site, with measurements calculated by Practical Ecology Ltd.

A Preliminary Ecological Appraisal (PEA) report by Practical Ecology Ltd in 2021ⁱⁱ identified the onsite habitat allowing the use of the Small Site Metric to identify baseline habitats onsite. This gave a baseline score of 0.9117 Habitat Biodiversity Units (BU). Onsite habitat attributing to the unit score includes an area of non-priority broadleaved woodland, neutral grassland, trees, and introduced shrubs.

The pre-development baseline did not identify hedgerow or river habitat onsite.

The post-development assessment based on a landscape proposal plan by Vector Landscape Architects shows the loss of some of the woodland as well as small areas of grassland. Units are provided by additional areas of neutral and modified grassland, further tree planting, as well as native scrub and introduced shrub planting; these combine to produce a post-development score of 0.9432, a gain of 0.0315 BU (+3.46%). Two short sections of hedgerow provide a gain of 0.1874 Hedgerow BU onsite.

It is therefore concluded that the proposed development will see a measured net gain when only net neutral was required by the Local Planning Authority.

1 Introduction

1.1 Document Purpose

This document provides a summary of the Biodiversity Net Gain (BNG) Calculations that Practical Ecology Ltd were commissioned to undertake, on behalf of McDonalds Restaurants, to provide information pertinent to the development of the former Wren's Nest Public House, Glossop, herein referred to as the 'Site'. This document only provides information regarding the biodiversity value of habitats according to the Defra Metric calculator for pre and post development, and the percentage unit change. Assessments for protected or Priority Species are not included, and the relevant species-specific reports should be referred to for information regarding necessary mitigation and enhancements.

1.2 The Site

The Site is approximately 0.3ha (central OS grid reference SK 02794 94240, postcode SK13 7AJ) and is located on Glossop Brook Road in the town of Glossop, Derbyshire. The Site comprises primarily of an urban mosaic of natural and sealed surfaces (a combination of hard standing, grassland, amenity tree and shrub), a two-storey building, a parcel of broadleaved woodland, and a steep bank of neutral grassland with ruderal and emerging scrub growth following recent clearance. The Site is surrounded by industrial buildings, roads, car parks, and a water course (Glossop Brook) lies immediately to the south. The Site boundary (red line) is shown in Figure 1 below (12200_AEW_8325_0001 C).



Figure 1: Site Boundary

1.3 Proposals

The proposals include clearance of the Site, including the thinning of the area of woodland, and the development of a McDonalds Restaurant and Drive-Thru with associated car park. A proposal plan has been included in Appendix 1 (19113-VL-McD_L01 C).

2 Methods

2.1 Defra Biodiversity Metric 3.1

To determine the impact of the development on biodiversity, biodiversity net gain calculations were undertaken using the DEFRA Small Site Biodiversity Metric 3.1 by Alex Jessop MSc, an Ecologist with over four-and-a-half years' experience and Sammi Smith MSc, an Assistant Ecologist with over one and a half years' experience. Habitat areas were assessed during a Preliminary Ecological Appraisal by Practical Ecology Ltd was carried out in June 2021ⁱⁱ.

Habitat types were analysed using the UK Habitat Classification systemⁱⁱ, a habitat classification tool compatible with the Small Sites Metric 3.1 calculator. Post-development area calculations were taken from a landscape plan produced by Vector, shown in Appendix 1 (19113-VL-McD_L01 C).

While it is acknowledged that Small Site DEFRA Metric 4.0 is now available, Version 1 of this assessment, and feedback to the project team, was undertaken using the Small Site Metric 3.1 and following guidance on the assessments using the Metricⁱ continuity between assessments is recommended and therefore, Metric 3.1 is retained for this project.

The report follows guidance from the Chartered Institute of Ecological and Environmental Management (CIEEM) Biodiversity Net Gain Report & Audit Templatesⁱⁱⁱ.

2.2 Limitations

No limitations were encountered.

3 Biodiversity Metric Calculations

3.1 Baseline

The pre-development habitats, their areas and condition are available in the metric calculations and locations are in the figure in Appendix 2. The measured Site area is 3729m² with areas of woodland, neutral grassland, and introduced shrub all contributing to a baseline biodiversity value of 0.9117 Biodiversity Units (BU). The majority of the baseline value (0.48 BU) is provided by the woodland.

3.2 Proposed Design

The proposed design for the Site is shown in the proposal plan in Appendix 1 (19113-VL-McD_L01 C) and shows the loss of areas of grassland as well as much of the woodland along the eastern boundary, as well as the small areas of introduced shrubs. The southern-most area of woodland is to be retained, which includes the most mature trees within the Site. The majority of the two largest areas of neutral grassland are also to be retained. The proposed design includes additional areas of neutral grassland as well as areas of modified grassland, introduced shrub, dense scrub, trees and ground level planters which all contribute to a post-development score of 0.9432 BU, a gain of 3.46%. A map showing the post-development habitat is shown as Appendix 3.

The proposals see a gain of 0.1874 Hedgerow Units (HU), from the baseline of zero.

3.3 Biodiversity Net Gain Calculations Summary

A summary of the pre- and post-development Metric 3.1 calculations are shown in Table 1 below.

Table 1: Summary of Onsite Biodiversity Net Gain Calculations

Baseline value	<i>Habitat units</i>	0.9117
	<i>Hedgerow units</i>	Zero Units Baseline
	<i>River units</i>	Zero Units Baseline
Post development value	<i>Habitat units</i>	0.9432
	<i>Hedgerow units</i>	0.1874
Total net unit change	<i>Habitat units</i>	0.0315
	<i>Hedgerow units</i>	0.1874
Total net % change	<i>Habitat units</i>	3.46%
	<i>Hedgerow units</i>	% not appropriate

4 Discussion & Conclusion

4.1 Biodiversity Net Gain

From the calculations undertaken, it is shown that the proposals show a net gain of 3.46%. This is similar to Version 1 of this assessment, and an improvement of Version 2 of this assessment due to the additional 67m² of neutral grassland and three additional trees planted.

4.2 Next Steps

Securing Management of Onsite Habitats

Management of the Site should be continued in perpetuity to allow the planted and retained trees to mature and establish to a medium size, with ongoing management also ensuring that areas of neutral grassland are allowed to flower and species diversity of over 9 species per 1m² is achieved. These, and more specific details are included within the Landscape Plan provided by Vector and shown as Appendix 1.

4.3 Protected Species Consideration

Although not calculable in the metric, the PEA report **Error! Bookmark not defined.** suggested species-specific mitigation, compensation, and enhancement measures which should be considered as required to achieve an overall net gain onsite;

- Updated bat surveys, if required. Previous assessments did not find evidence of roosting bats.
- A nesting bird check prior to the removal of any potential nesting habitat during the nesting bird season.
- A Construction Ecological Management Plan.
- Bat boxes, bird boxes, insect boxes, and pollinator friendly planting.

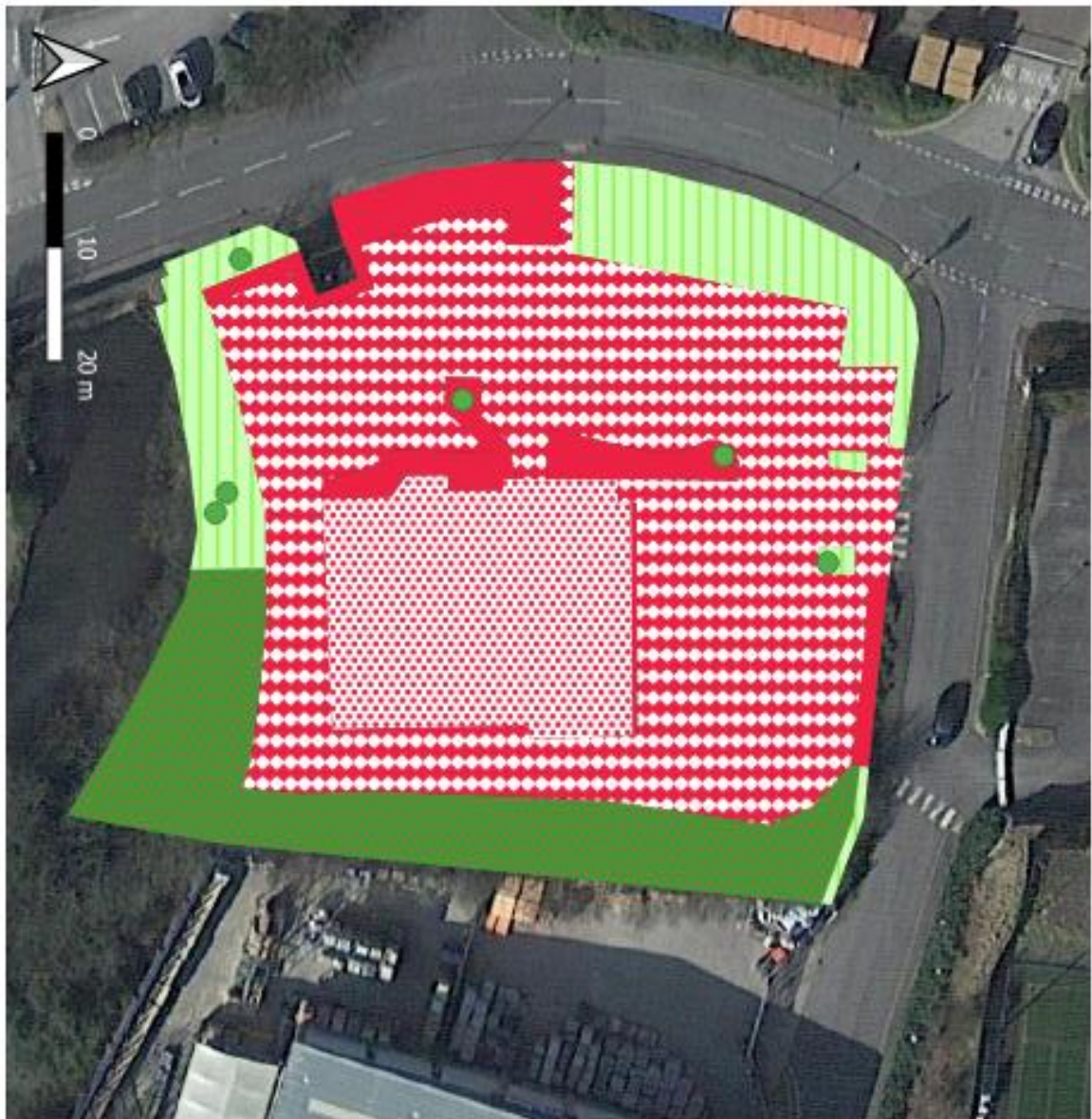
4.4 Conclusion

Version 3 of the assessment using the Small Sites Metric (3.1) shows a gain of 0.0315 (+ 3.46%). This shows the proposed development will provide a measured net gain.

References

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- ⁱ <http://publications.naturalengland.org.uk/publication/6049804846366720>
 - ⁱⁱ Practical Ecology Ltd, 2023, Preliminary Ecological Appraisal *Glossop Wren's Nest (8325)* Version 3 March 2023.
 - ⁱⁱⁱ CIEEM (2021). Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK.

Appendix 2: Pre-development Habitat Classifications



Practical Ecology Ltd
Q2-1219 Glossop 8325 'Wren's Nest'
Biodiversity Net Gain Assessment
Version 2: Post-Development
Based: 19113_VL-MCD_L01
Drawn: AJ
Date: 30.03.23

Contents

- Pre-Dev Urban Trees
 - Pre-Dev UKHCS
 - g3c - other neutral grassland
 - w1g - other woodland-broadleaved
 - u - urban
 - u1b5 - buildings
 - u1b6 - other developed land
- Google Satellite

* Introduced shrub are shown as 'U' - Urban*
as no specific code is included in the UKHCS
mapping guide.

Appendix 3: Post-development Habitat Classifications



Practical Ecology Ltd
Q2-1219 Glossop 8325 'Wren's Nest'
Biodiversity Net Gain Assessment
Version 3: Post-Development
Based: 19113_VL-mCD_L01
Drawn: AJ & SS
Date: 20.04.23

Contents

-  Redline
-  Post-Dev Urban Trees
-  Raised Planter
-  Native Species Rich Hedge
-  Post-Dev UKHCS
-  g3c - other neutral grassland
-  g4 - modified grassland
-  w1g - other woodland-broadleaved
-  h3 - dense scrub
-  u - urban
-  u1b5 - buildings
-  u1b6 - other developed land
- Google Satellite

*Introduced shrub are shown as "u - Urban" as no specific code is included in the UKHCS mapping guide.