Biodiversity Net Gain Baseline & Feasibility Report

Site: Newlands Nurseries

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SUMMARY

A baseline Biodiversity Net Gain calculation was required to meet the National Planning Policy Framework (NPPF, 180(d)2023), Statutory Biodiversity Net Gain requirements and the Ribble Valley Borough Council Core Strategy Key Statement. The proposed development site baseline condition is of low ecological value, with species poor grassland habitat, and an area of sealed surface present on the site of the proposals. The DEFRA Statutory BNG Metric Tool (published 12/02/2024) was used to calculate the baseline habitats, to support a planning application and for comparison with those of the final proposed development & final % net gain.

The baseline assessment of the site shows a total of.15 units.

Gains will be achieved by planting native berry producing trees on the southeast site boundaries. 14 trees would deliver 12.47% net gain (.02 units) and is shown in the headline results at Appendix 1. This could be off-site i.e. outside the red-line boundary, but within the nursery blue line boundary.

A full site Habitat Baseline Plan is included at Appendix 2, site photos as Appendix 3, proposed plan at Appendix 4.

1.   INTRODUCTION

1.1   Background

An assessment was required to determine the Biodiversity Net Gain baseline habitats and units of the site to support a planning application for the addition of three polytunnels on the site at Newlands Nursery, Sawley Rd, Chatburn BB7 4LD.

1.2   Scope of the Report

The assessment takes into consideration the local and national planning policy and strategy relevant to the site, the baseline ecological condition of the site, and the proposed development plans and the enhancement plan, and to meet the requirements of The National Planning Policy Framework (2023) and standards set in the CIEEM/CIRIA *Biodiversity Net Gain. Good Practice Principles for development a practical guide.*

2   METHODOLOGY

2.1   Desk and Field study methods

- Habitats are described using the UK Habitat Classification System methods and codes (converted from JNCC Phase 1 codes where necessary), and condition assessed using the Statutory Biodiversity Net Gain Metric - Auditing and Accounting for Biodiversity Condition Assessment Sheets.
- Areas were measured using Google Earth and the clients own landscape plans.
- Surveys and assessment were carried out by C Edmondson MSc MRSB, Principal ecologist with 12yrs field survey experience and Natural England Class 2 bat licence holder.

- Site Survey methods used were as described in the UKHab User Guide (2022). The data collected during the survey have been used to inform this report.
- BNG Metric tree helper was used to calculate the unit value of any single trees.

2.2   Approach to BNG

BNG Principles: BNG is achieved through 10 principles, the first of which is the Mitigation Hierarchy. This Hierarchy will be followed at each stage of the development.

The DEFRA Statutory Biodiversity Net Gain Metric aims to:

- Assess the biodiversity unit value of the area of land.
- Demonstrate biodiversity net gains or losses in a consistent way.
- Measure and account for direct impacts on biodiversity.
- Compare proposals for the site - such as creating or enhancing habitat on-site or off-site.
- The metric assesses existing habitats and planned new habitats created by a development or land change.

2.3   Limitations

There were no limitations to this report.

3.   BASELINE SITE CONDITIONS

Site Description

A site survey was carried out on 13th May 2024. The site is adjacent to a horticultural nursery, with the proposed plans to increase the area of polytunnels on the site. The area of the proposed works consists of one third covered by impermeable membrane, and the remainder managed improved grassland (modified grassland) currently intensively grazed by sheep. Some injurious weeds had invaded areas that have been poached or disturbed, including broadleaved dock, creeping thistle & nettles.

Important Ecological Features:

- There were no Priority Habitats or protected species recorded on site.

Baseline Metric Calculations

Using the Statutory Metric BNG Calculation tool, the development shows a baseline habitat unit total of 0.15 (Headline results at Appendix.1) and is made up of the habitats listed at table 1.

A full site Habitat Baseline Plan is included at Appendix 2, site photos as Appendix 3, proposed plan at Appendix 4.

Table 1. Habitats at baseline calculation

Site Features:	Code (UKHabs)	Area ha/length/no.	BNG units
Developed land (Impermeable surface)	u1	.0386ha	0
Modified grassland (sheep grazed)	g4, 102	.0773ha	0.15
		Total baseline units	**0.15**

4.   BNG GOOD PRACTICE PRINCIPLES FOR DEVELOPMENT

BNG is achieved through 10 principles, the first of which is the Mitigation Hierarchy. This Hierarchy will be followed at each stage of the development.

Principle 1: Mitigation Hierarchy

1: Avoid Biodiversity Loss e.g. Finding alternative sites, changing development plans etc

2: Minimise any loss

3: Mitigate for any loss

4: Compensate

Table 2: Hierarchy measures to obtain the target net gain

1: Avoidance The CSBI defines avoidance as 'Measures taken to anticipate and prevent adverse impacts on biodiversity before actions or decisions are taken that could lead to such impacts'.	The results of the UKHabs assessment show that there were no priority habitats present within the site boundaries. • Habitats present: Modified grassland • Condition: Poor • Distinctiveness: Low Measures to avoid pollution to local sites will be implemented according to current EA Pollution Prevention Guidance.
2. Minimise	The development will contain the works within the footprint to avoid impact on a larger area.
3. Mitigation	Planting native berry producing trees on the site boundary.
4. Compensation	Planting native berry producing trees on the site boundary.

Principle 2: Avoid losing biodiversity that cannot be offset by gains elsewhere:

Avoid impacts on irreplaceable biodiversity – these impacts cannot be offset to achieve No Net Loss or Net Gain.

- No Priority Habitats or Irreplaceable habitats are present on site.
- Trading Rules for irreplaceable habitats will not apply.

Principle 3: Be Inclusive and Equitable

Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to Biodiversity Net Gain. Achieve net gain in partnership with stakeholders where possible and share the benefits fairly among stakeholders.

- Further stakeholders could be engaged at the design stage.

Principle 4: Address Risk

- This is addressed within the metric and methodology set out within the Ecological impact Assessment.

Principle 5: Make a measurable Net Gain Achievement

- This will be achieved through the landscape plan and Biodiversity Enhancement Plan.

Principle 6: Achieve the best outcomes for biodiversity.

- Increasing the number of trees on site, enhancing the retained scrub and creating patches of open vegetation will create a more diverse habitat suited to a wide variety of invertebrates and birds.

Principle 7: Be additional.

- This proposal aims to achieve a greater BNG than the required 10%.

Principle 8: Create a net gain legacy.

To be achieved through the "Next steps":

- Biodiversity Net Gain Management and Monitoring Plan.

Principle 9: Optimise sustainability & prioritise biodiversity.

- By implementing the enhancements and proposed tree planting/re-seeding in the landscaping plan this development will improve the sustainability of the site.

Principle 10: Be transparent.

- Communicate all Biodiversity Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

5.   PROPOSED DESIGN & POTENTIAL NET GAIN

The potential net gains have been calculated from the GHA Drawing No.**Bri 910.3452.02 which shows the habitats listed in Table 3 below.**

Table 3: proposed habitats

Site Features:	Code (UKHabs)	Area ha/length/no.	BNG units
Developed land (polytunnels)	u1	.1159ha	0
Single Rural trees x 14 size small, condition: moderate		.057ha	0.17
		Potential final units	**0.17**

5.1   Biodiversity Net Gain Feasibility

The outcome of the calculation on the proposals listed at table 3 shows a potential net gain of **12.72%**. This would be achieved by:

Planting native berry producing trees on the southwest site boundary. 14 trees would deliver 12.72% net gain (.02 units) and is shown in the headline results at Appendix 1. This would be off-site i.e. outside the red-line boundary, but within the nursery blue line boundary as shown at Appendix 4 GHA drawing no. Bri.910.3452.02.

BIBLIOGRAPHY

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- DEFRA Statutory Biodiversity Metric User Guide
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- National Planning Policy Framework, 2023
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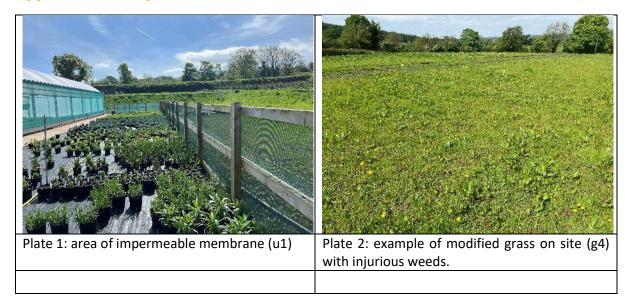- UKHab Classification Guide v2.0 2023 https://ukhab.org/

Appendix 1

Potential Net Gain: Tree planting off-site

Newlands Nursery		
Headline Results	Return to results menu	
Scroll down for final results ⚠		

On-site baseline	Habitat units	0.15		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site net change (units & percentage)	Habitat units	-0.15	-100.00%	On-site net gain is less than target set ⚠
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Off-site baseline	Habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.17		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	Habitat units	0.17	N/A	Zero baseline units - % cannot be calculated
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.02		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	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)	Habitat units	0.02
	Hedgerow units	0.00
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	12.72%
	Hedgerow units	0.00%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	0.15	0.17	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

Appendix 2: Baseline habitats & potential enhancement areas

Appendix 3: Site photos

Plate 1: area of impermeable membrane (u1)	Plate 2: example of modified grass on site (g4) with injurious weeds.

Appendix 4: Proposals location map

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