

Land Adjacent to School House, School Lane, Offley, SG5 3AT.

Biodiversity Net Gain Assessment

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1. Summary

Elizabeth Greenwood CMLI was commissioned by John Clarke of Hox Design Architects to undertake a Biodiversity Net Gain (BNG) Assessment at the land adjacent to School House, School Lane, Offley on behalf of Salusbury and Burrough Educational Foundation.

The site is a small garden area with a hard surfaced driveway and turning space, an area of lawn grass and a small concrete shed. The southern and western boundaries of the site are bordered by hedgerow which is made up mostly of native hedging species with some non-native, and ivy with native trees growing through the line of the hedge.

The proposals for the site are to develop the site into a terrace of four new dwellings with a parking area and individual private gardens for the properties. The proposals include a landscape design which addresses need for access and parking and increases the site's contribution to biodiversity.

The site at 550m² is below the 1ha area threshold for the full Biodiversity Metric 4.0 and within the appropriate range for the use of the Small Sites Metric (SSM)

This report makes use of the Small Site Metric calculation tool to assess the ecological value of the existing habitat compared with the value of the resulting habitats provided by the proposals if planning permission is granted.

The habitat of the existing site is sub-urban. The majority of the site is made up of lawn grass, classified by the SSM as being modified grassland with low biodiversity. The next largest area is made up of developed land with a sealed surface with no habitat value.

The existing site contains four trees, 42.1m of hedgerow and no watercourses

The site's hedgerow and trees provide the bulk of the site's contribution to biodiversity and the landscape proposals retain these habitats.

Desk survey established that The Chilterns AONB is within 500m of the property at roughly 300m to the north. The Chilterns are separated from Offley and the development site by the A505 and it is highly unlikely that the development at the site would have any impact on the designated landscape.

The landscape proposals seek to create as much new habitat as is feasible and practical. The proposals replace the existing driveway and other hard surfacing with permeable paving. A new line of hedgerow will be planted on the site's north-eastern boundary and smaller native hedgerows are planted at the front of the new building.

The proposals include sixteen new trees, eleven of them are native species, and five small areas of ornamental planting featuring a high percentage of ornamental bramble.

The resulting the development was identified to provide an addition of +0.0726 (+11.73%) new habitat units and +0.0505 (+15.01%) new hedgerow units. The development is considered to provide a significant increase to the value of biodiversity found on the site.

2. Introduction

2.1 Background

Elizabeth Greenwood CMLI was commissioned by John Clarke of Hox Design Architects to undertake a Biodiversity Net Gain (BNG) Assessment at the site.

Elizabeth Greenwood is a chartered member of the Landscape Institute and is considered competent to assess biodiversity net gain according to the BNG guidelines.

2.2 Aim

This report details the ecological baseline for the site and shows how the proposals will provide quantifiable net gain for biodiversity.

The site makes use of the Small Sites Metric (SSM) calculator tool which is a simplified version of DEFRA Biodiversity Net Gain Metric 4.0 appropriate for the assessment of sites of low complexity beneath the threshold of 1ha total area. This tool establishes the habitat value of the site before and after development and the resulting measurable net gain for biodiversity.

3. Baseline Conditions

3.1 Methodology

The site was surveyed in person on 27/08/2024 by Elizabeth Greenwood.

Desk based research using publicly available tools such as the Magic Map Application and Google Earth were used to establish the context and status of the site and surrounding area.

3.2 Findings

After a thorough investigation of the site, including the identification, accurate measurement of the various habitat types and photographic survey, the results were drafted in plan form and the BNG small site's metric was completed.

The site is a small garden area with a hard surfaced driveway and turning space, an area of lawn grass and a small shed. The southern and western boundaries of the site are bordered by hedgerow which is made up mostly of native hedging species and ivy with native trees growing through the line of the hedge.



Above-left: Lawn (modified grassland), with cherry tree in hedgerow **Right:** The driveway.



Above-left: The site's concrete shed; **Right:** The hedgerow on the southern border.

Below-left: Section of hedgerow with majority ivy; **Below-right:** north-western hedgerow from outside the site.



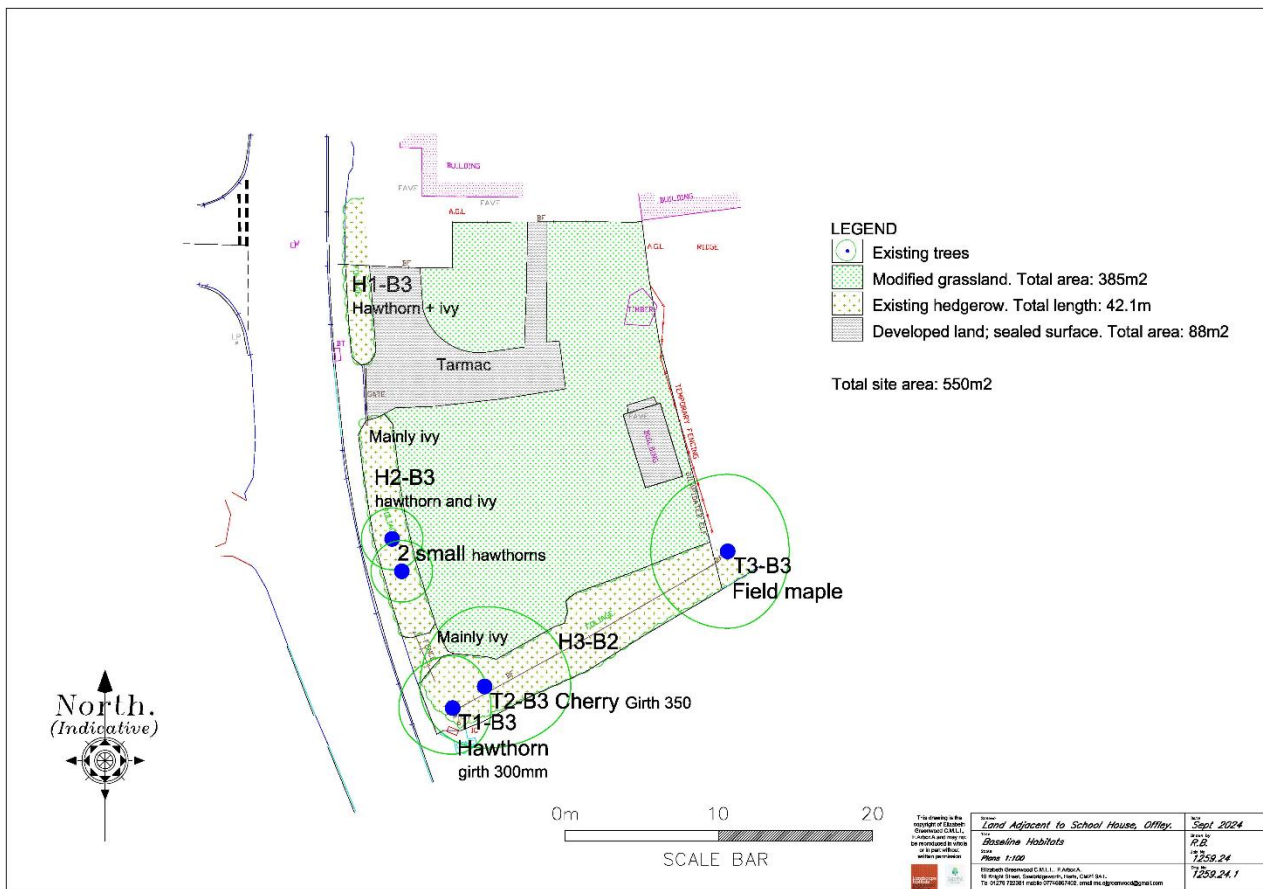
Table 1. Habitat baseline value calculated with Small Sites Metric

Habitat Type	Area (M ²)	Equivalent Habitat Value (Habitat Units)
Modified grassland	385	0.15
Developed land; sealed surface	88	0.00
Vegetated garden	77	0.02
Total Baseline Habitat Value:		0.17

Table 2. Habitat baseline value calculated with Small Sites Metric

Species	Stem Diameter	Category
Hawthorn	<300mm	B3
Hawthorn	<300mm	B3
Hawthorn	<300mm	B3
Cherry	350mm	B3
Baseline habitat units:		0.6187

Plan1. Existing habitat areas. Plan No. 1259.24.1



Desk survey established that The Chilterns AONB is within 500m of the property at roughly 300m to the north. The Chilterns are separated from Offley and the development site by the A505 and it is highly unlikely that the development at the site would have any impact on the designated landscape.

The proposals are detailed in Plan: 1259.24.2A and include:

- 237.05m² Permeable paving
- 18m² Bramble scrub.
- 15.1m New native hedgerow
- 16 New trees, including 11 native specimens
- Retention of all four existing trees.

LEGEND

- Existing trees
- Existing hedgerow
- Existing lawn
- New trees
- Mixed native hedge
- Native hedge
- Mixed planting
- Marshall's Driveline Priora Block paving (Brindle)
- Marshall's Driveline Priora Block paving (Charcoal)
- Marshall's Conservation X Priora Paving (400x600mm, Silver Grey)
- Existing closeboard fence
- New closeboard fence
- Tree pit
- Bark mulch

Planting Schedule

Key	Species	Girth	Pot size	Qty	Contribution
1a	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1b	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1c	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1d	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1e	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1f	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1g	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1h	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1i	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1j	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1k	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1l	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1m	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1n	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1o	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1p	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1q	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1r	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1s	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1t	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1u	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1v	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1w	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1x	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1y	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1z	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
TOTAL				100	

Hedge

Key	Species	Height	Pot size	Qty	Contribution
1a	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1b	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1c	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1d	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1e	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
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1y	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
1z	Arbutus Menziesii	12-14cm	45 litre	6	Native/Whistle
TOTAL					

Habitat Type	Area (m²)	Habitat Units Created on Site
Artificial unvegetated unsealed surface	237.05	0.0
Vegetated garden	95	0.0050
Bramble scrub	18	0.0069
Total Proposed Habitat Value:		0.0119

Table 4. Hedgerow value of proposals calculated with Small Sites Metric

Hedgerow Type	Length (m ²)	Habitat Units Created on Site
New native hedgerow	8.5	0.0505
Total Proposed Habitat Value:		0.0505

Table 5. News tree planting value calculated with Small Sites Metric

Tree size	Quantity	Habitat Units Created on Site
<300mm	16	0.1991
Total Proposed Habitat Value:		0.1991

5. Results

The resulting the development was identified to provide an addition of +0.0726 (+11.73%) new habitat units and +0.0505 (+15.01%) new hedgerow units. The development is considered to provide a significant increase to the value of biodiversity found on the site.

Site Name		Land Adjacent to School House, School Lane, Offley	
Sheet Name		Headline Results	
Headline Results			
Headline		BNG Targets Met ✓	
Trading Rules		Trading Rules Satisfied ✓	
Next steps		Submit metric to LPA	
Baseline Units	Habitat units	0.6187	
	Hedgerow units	0.3368	
	River units	Zero Units Baseline	
Post-development Units	Habitat units	0.6913	
	Hedgerow units	0.3873	
	River units	0.0000	
Total net unit change	Habitat units	0.0726	✓
	Hedgerow units	0.0505	✓
	River units	0.0000	✓
Total net % change	Habitat units	11.73%	✓
	Hedgerow units	15.01%	✓
	River units	% target not appropriate	
Habitats units required to meet target		0.0000	
Hedgerow units required to meet target		0.0000	
River units required to meet target		0.0000	

Above: Headline results from Small Sites Metric

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6. References

Natural England (2023). Small Sites Metric (Biodiversity Metric 4.0). Natural England Joint Publication JP040. Available online at:

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