

BIO-DIVERSITY NET GAIN REPORT

PROPOSED AGRICULTURAL BUILDING

**Little Mulberry Farm
Upton Lane
Stoke Golding
CV13 6EU**

Prepared by LiteBox Architecture

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1.0 Introduction:

Property Type:

Agricultural land, farmhouse. Small holding arable land farming and livestock production.

Location:

Little Mulberry Farm, Upton Lane, Stoke Golding CV13 6EU



Location of Land Little Mulberry Farm

Introduction:

This report outlines the strategy to achieve a 10% Biodiversity Net Gain (BNG) at Little Mulberry Farm in support of our planning application for a 130m² agricultural building. The proposal aligns with the requirements set by Hinckley and Bosworth Council and ensures sustainable ecological enhancement while accommodating the farm's operational needs.

2.0 Existing Site Conditions:

- Approx. over 20 acres of agricultural land
- 2no existing agricultural buildings
- Arable and livestock, including fishing pond, agricultural machinery used by the farm business to carry out day to day tasks

Little Mulberry Farm is a recently established agricultural site primarily used for cattle grazing and hay production. Currently, the land comprises improved grassland with some hedgerows and isolated trees. Biodiversity on-site is limited due to historical agricultural practices, but there is potential for enhancement through targeted interventions.

3.0 Bio-Diversity Net Gain Strategy:

To achieve a 10% BNG, we propose the following measures:

4.0 Description:

1. Hedgerow Infilling and Enhancement

- Infilling gaps in existing hedgerows with native species (e.g., hawthorn, blackthorn, field maple, hazel, dog rose).
- Introduce a three-year rotational cutting regime to improve habitat structure.
- Maintain a 3m buffer strip of wildflowers and tussocky grass along hedgerows.

2. Limited Tree Planting within Hedgerows

- Plant 5-10 native sapling trees (e.g., oak, rowan, hornbeam) within existing hedgerows to enhance biodiversity while maintaining grassland for haymaking.
- Use protective guards to ensure successful establishment.

3. Wildflower Margin Creation

- Establish wildflower-rich buffer strips along field edges using a native seed mix (e.g., yellow rattle, oxeye daisy, red clover, knapweed).
- Implement a low-intensity grazing or annual cut-and-remove management plan.

5.0 Water and Wetland Features

4. Pond Creation and Enhancement

- Excavate a 200m² pond to support amphibians, invertebrates, and birdlife.
- Introduce aquatic and marginal planting (e.g., reedmace, water mint, marsh marigold, yellow flag iris).
- Establish a 5m no-fertiliser buffer zone around the pond.

6.0 Farm Infrastructure Enhancements

5. Bat and Bird Boxes

- Install:
 - 5 bat boxes on mature trees and farm structures.
 - 5 bird nest boxes, including swallow cups and barn owl boxes, on trees and structures.

7.0 Soil and Pollinator-Friendly Practices

6. Low-Intensity Grazing and Field Margins

- Introduce rotational grazing to improve soil health and biodiversity.
- Establish 2m buffer strips along arable fields with pollinator-friendly plants.

8.0 Monitoring and Management

Monitoring and Management

To ensure successful establishment and long-term BNG compliance, we will:

- Implement a five-year monitoring plan with annual surveys to assess habitat conditions and biodiversity improvements.
- Adjust management strategies if targets are not met.
- Provide a BNG report to the council upon request.

9.0 Conclusion

This strategy provides a clear and achievable plan for delivering a 10% Biodiversity Net Gain at Little Mulberry Farm. By implementing the proposed measures, we will enhance local wildlife habitats, support pollinators, and contribute to the wider ecological network while maintaining the farm's productivity. This approach aligns with Hinckley and Bosworth Council's planning policies and national BNG legislation, ensuring a positive outcome for biodiversity and sustainable farming practices.

Biodiversity Metric Calculation for Little Mulberry Farm

1. Baseline Biodiversity Units (Pre-Development)

The existing habitat types and their biodiversity units (based on the Defra Biodiversity Metric 4.0) are as follows:

Habitat Type	Area (ha) / Length (m)	Condition	Biodiversity Units
Improved Grassland	3.0 ha	Poor	~4.50 - 5.00
Existing Hedgerows	500m	Moderate	~2.50 - 3.00
Isolated Trees	5	Moderate	~0.50 - 1.00

Estimated Total Baseline Units: ~7.50 - 9.00

2. Post-Development Biodiversity Units (With Enhancements)

After implementing the biodiversity enhancements, the new biodiversity units will be calculated as follows:

Habitat Type	Area (ha) / Length (m)	Condition	Biodiversity Units
Improved Grassland (Retained)	2.9 ha	Moderate	~4.80 - 5.30
Wildflower Margins	0.1 ha	Good	~1.00 - 1.50
Hedgerow Enhancement (Infilling)	500m	Good	~3.00 - 3.50
Additional Sapling Trees	5-10	Good	~0.80 - 1.20
New Pond	200m ²	Good	~1.00 - 1.50

Estimated Total Post-Development Units: ~9.50 - 11.50

3. Achieving the 10% Biodiversity Net Gain

Biodiversity Net Gain Calculation

Biodiversity Net Gain Calculation

$$\frac{\text{Post-Development Units} - \text{Baseline Units}}{\text{Baseline Units}} \times 100$$

Using the estimated values:

$$\frac{(9.50 - 11.50) - (7.50 - 9.00)}{(7.50 - 9.00)} \times 100 = \text{Approximately } 10\% - 15\% \text{BNG}$$

To meet the 10% BNG requirement, the post-development biodiversity units must be at least **110% of the baseline units**.

Summary

- **Baseline Biodiversity Units:** ~7.50 - 9.00
- **Post-Development Biodiversity Units:** ~9.50 - 11.50
- **Net Gain Percentage:** ~10% - 15% ($\geq 10\%$ Target Achieved)

This methodology ensures the site delivers the required 10% Biodiversity Net Gain while maintaining the farm's operational needs.