Yew Tree Farm, Hankerton, Malmesbury, SN16 9JZ

Biodiversity Net Gain Preliminary Design Stage Report



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All Ecology Ltd

Tel: 01453 393001
Email: info@allecology.co.uk
Web: www.allecology.co.uk

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England and Wales Office

All Ecology Ltd,
Haw Street,
Coaley,
Dursley,
Gloucestershire,
GL11 5AY.

Scotland Office

All Ecology Ltd,
Bowfield Road,
Howwood,
Renfrewshire,
PA9 1BZ.

Tel: 01453 393001
Email: info@allecology.co.uk
Web: www.allecology.co.uk

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Notice to Readers:

The results of the survey and assessment work undertaken by All Ecology are representative at the time of surveying.

Every endeavour has been made to identify the presence of protected species on site, where this falls within the agreed scope of works.

The flora and fauna detailed within this report are those noted during the field survey and from anecdotal evidence. It should not be viewed as a complete list of flora and fauna species that may frequent or exist on site at other times of the year.

Up to date standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility will be accepted where these methodologies fail to identify all species on-site.

All Ecology cannot take responsibility where Government, national bodies or industry subsequently modify standards.

All Ecology cannot accept responsibility for data collected from third parties.

Reference to sections or particular paragraphs of this document taken out of context may lead to misrepresentation.

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1.0 Introduction

Background

1.1 All Ecology was commissioned to produce a Biodiversity Net Gain Preliminary Design Stage Report for a site known as Yew Tree Farm, Hankerton, Malmesbury, SN16 9JZ. The site consists of a vacant farm house, associated gardens and a number of empty barns surrounded by hard standing. The site is located in the rural village of Hankerton approximately 4.5 km northeast of Malmesbury with the surrounding area being a mosaic of pasture and arable land with a network of field boundary hedgerows.

1.2 The proposals for the site are to seek planning permission to demolish the existing farm buildings with the erection of a new dwelling and garages with a swimming pool and tennis court created in re-landscaped gardens.

1.3 The Biodiversity Metric Calculation Tool is used to calculate the biodiversity value of a site before and after development and then calculates if the development is likely to cause a loss or gain to biodiversity. It will also calculate the amount of compensation the site may need in the form of Biodiversity Offsetting.

Proposed development area



2.0 Methodology

2.1 The Biodiversity Impact Assessment Calculator was provided by Defra. The Biodiversity Metric 4.0, published in March 2023, provides developers, planners, land managers and others with a robust but simple tool to account for the value of nature and better understand how development and land management change will impact on its value over time.

2.2 The DEFRA Metric uses UKHab habitat definitions translated from JNCC Phase 1 habitat definitions where required, and the Natural England Hedgerow Impact Assessment Guide to calculate the overall scores for habitats and linear features on site and determine net gain/net loss. The User Guide to Defra's Biodiversity Metric 4.0 and the supporting Technical Supplements were followed for accurate data entry into the calculator.

2.3 The habitats and linear features were originally identified on site during the Preliminary Ecological Appraisal. This included full habitat descriptions, photographs and assessment of the site's potential to support the various species groups. Areas and lengths of the current habitats and linear features were determined using Google Earth and topographical surveys. The proposed site plans were used and measured to determine retained and new habitats for the site and to look for opportunities for enhancement.

Limitations

2.4 Full detailed plans and landscape proposals were unavailable at the time of assessment. This Biodiversity Net Gain Assessment is based on the results of the initial Ecological Appraisal and proposed site plans available at the time of writing. Suggestions are made for achieving biodiversity net gain.

3.0 Results

Habitats and Condition Assessment

3.1 Full results can be seen in Appendix 1.

On-site Habitat Baseline

3.2 (1) Urban – Developed land; sealed surface (buildings)

- 0.082 ha
- Total habitat units – 0.00

3.3 (2) Urban – Developed land; sealed surface (concrete and paving)

- 0.1 ha
- Total habitat units – 0.00

3.4 (3) Urban – Artificial unvegetated, unsealed surface (Gravel driveway parking and path)

- 0.11 ha
- Total habitat units – 0.00

3.5 (4) Grassland – Modified grassland (lawn and grass verges)

- 0.1335 ha
- Total habitat units – 0.49

3.6 (5) Urban – Introduced shrub (garden shrubs)

- 0.045 ha
- Total habitat units – 0.09

3.7 (6) Urban – Built linear features (stone wall)

- 0.0015 ha
- Total habitat units – 0.00

3.8 (7) Individual trees (medium trees)

- 0.4764 ha
- Total habitat units – 3.81

3.9 (8) Individual trees (small trees)

- 0.0448 ha
- Total habitat units – 0.36

3.10 (9) Heathland and shrub – Bramble scrub (small pocket of scrub)

- 0.005 ha
- Total habitat units – 0.02

On-site Hedgerow Baseline

3.11 (1) Line of trees

- 0.02 km
- Total hedgerow units – 0.08

3.12 (2) Native hedgerow

- 0.075 km
- Total hedgerow units – 0.45

3.13 (3) Native hedgerow

- 0.05 km
- Total hedgerow units – 0.3

3.14 (4) Native hedgerow

- 0.05 km
- Total hedgerow units – 0.3

Habitat Creation

3.15 Urban – Developed land; sealed surface (buildings)

- 0.05 ha
- Habitat units delivered – 0.00

3.16 Urban – Other green roof (sedum roof)

- 0.003 ha
- Habitat units delivered – 0.01

3.17 Urban – Developed land; sealed surface (swimming pool)

- 0.0165 ha
- Habitat units delivered – 0.00

3.18 Urban – Developed land; sealed surface (garden terrace)

- 0.0105 ha
- Habitat units delivered – 0.00

3.19 Grassland – Modified grassland (lawn)

- 0.0875 ha
- Total habitat units – 0.17

3.20 Grassland – Modified grassland (wildflower grassland on perimeter of lawn)

- 0.03 ha
- Total habitat units – 0.14

3.21 Heathland and shrub – Mixed scrub (scrub planting adjacent to entrance of the site)

- 0.0245 ha
- Habitat units delivered – 0.16

3.22 Individual trees – Urban tree (small trees)

- 0.0122 ha
- Habitat units delivered – 0.04

3.23 Individual trees – Urban tree (medium trees)

- 0.1466 ha
- Habitat units delivered – 0.45

<u>Hedgerow Creation</u>

3.24 Native species-rich hedgerow

- 0.03 km
- Hedgerow units delivered – 0.23

On-site Habitat Enhancement

3.25 (1) Grassland – Modified grassland enhanced to good condition (grass verges and perimeter of lawn)

- 0.05 ha
- Habitat units delivered – 0.22

Summary of habitats and hedgerows to be retained, enhanced, created or lost

3.26 The majority of the proposed development area comprises of buildings and hard standing surrounded by amenity grassland, garden shrubs and trees with a small pocket of bramble scrub.

3.27 The proposals for the site include the demolition of all but two of the existing buildings, clearance of concrete hard standing and scrub. A new dwelling is proposed with associated garage, swimming pool, pool house and garden terrace.

3.28 In order to achieve a net gain it is suggested that a portion of the site be relandscaped to form lawns with the outer perimeters of the grassland enhanced by overseeding or wildflower grassland created. A small number of trees should be planted and scrub created adjacent to the entrance of the site. The existing gravel driveway will be largely retained. New infill planting of native hedgerow should be carried out on the existing open/fenced boundaries of the site.

3.29 The metric supplied shows an example of what can be achieved on site through implementation of suitable landscape proposals which would need to be supported by a Landscape and Ecological Management Plan (LEMP) approved in writing by the local planning authority prior to development.

Biodiversity Impact – Habitats

3.30 The development, based on current and proposed/suggested habitat conditions, distinctiveness and areas, would result in a total net unit change of 0.61 units; this is a net percentage change of +12.75%.

3.31 Table 1: Habitat biodiversity impact results (further detail in Appendix 1)

	Habitat Biodiversity Value
Baseline Units	4.77
Post-intervention Units	5.38
Net Unit Change	0.61
Net Percentage Change	+12.75%

Biodiversity Impact – Hedgerows

3.32 The development, based on current and proposed hedgerow conditions, distinctiveness and lengths, would result in a total net unit change of 0.23 units; this is a net percentage change of +20.78%.

3.33 Table 2: Hedgerow biodiversity impact results (further detail in Appendix 1)

	Hedge Biodiversity Value
On-site Baseline Units	1.13
On-site Post-intervention Units	1.36
Total Net Unit Change	0.23
Total Net Percentage Change	+20.78%

4.0 Conclusion

Biodiversity Offsetting

4.1 The suggestions made within this assessment will result in the development showing a habitat net gain of 0.61 units which is a 12.75% biodiversity net gain. The areas of planting on site will need to be retained and managed for a minimum of 30 years, which the local planning authority should secure by condition when granting planning permission. With the proposed/suggested hedge creation on site, there would be a gain of 0.23 units which is a 20.78% biodiversity net gain.

4.2 It will be necessary to update the metric once the landscape plans are available to ensure that a biodiversity net gain is achieved.

Summary Conclusion

4.3 The target level for minimum biodiversity net gain is expected to be 10%. The above demonstrates that the proposals for the site could result in a higher percentage gain than this level and an enhancement of the local area for biodiversity subject to a revised metric being completed once the landscape plans are available.

4.4 As a gain should be demonstrated, Biodiversity Offsetting would not be required. Recommendations within the ecology reports produced to date should be followed. The full details of the proposed landscape scheme will be provided by Millar and Howard Workshop.

4.5 A full specification of proposed habitats and hedgerows and details of habitat enhancement including relevant management to be produced within a Landscape and Ecological Management Plan (LEMP) approved in writing by the local planning authority prior to development.

5.0 References

All Ecology Ltd. (2023), Preliminary Ecological Appraisal 1.2: Yew Tree Farm, Hankerton, Malmesbury, SN16 9JZ.

Department for Environment, Food and Rural Affairs (DEFRA) (2023), *Biodiversity Metric 4.0 Calculation Tool*. [Online]. Available at: http://nepubprod.appspot.com/publication/6049804846366720 [accessed on 17th July 2023].

Department for Environment, Food and Rural Affairs (DEFRA) (2023), *Biodiversity Metric 4.0 Technical Annex 1 – Condition Assessment Sheets and Methodology*. [Online]. Available at: http://nepubprod.appspot.com/publication/6049804846366720 [accessed on 17th July 2023].

Department for Environment, Food and Rural Affairs (DEFRA) (2023), *Biodiversity Metric 4.0 Technical Annex 2 – Technical Information*. [Online]. Available at: http://nepubprod.appspot.com/publication/6049804846366720 [accessed on 17th July 2023].

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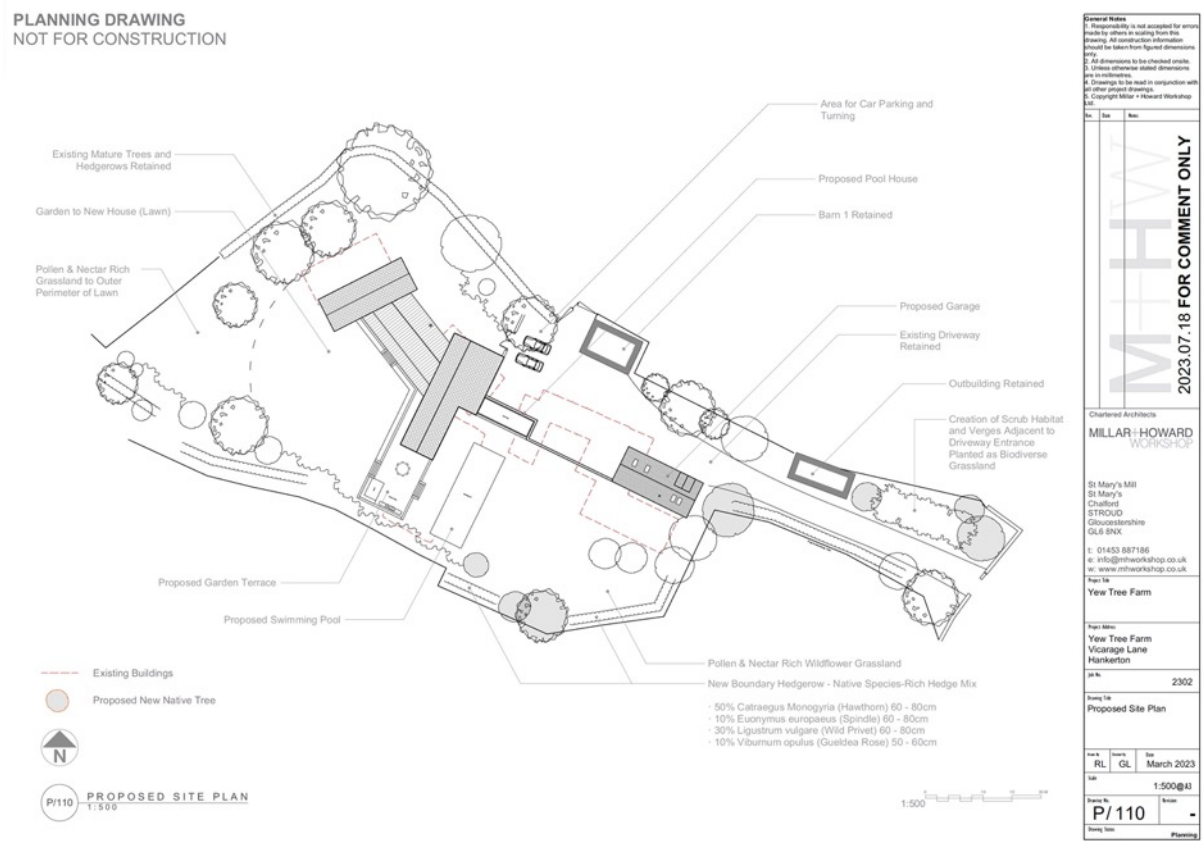
6.0 Plans

Proposed Site Plan



7.0 Appendices

Appendix 1 – Biodiversity Metric 4.0 Calculation Tool – See attached Excel spreadsheet