



Biodiversity Net Gain Report

82 Forest Road

Survey Date: 11th May 2026

Issued By:
Eco 360 Ltd
Hollinscroft House
Uttoxeter Road
Stoke-on-Trent
ST10 4LJ

Tel: 0330 133 8294
Email: info@eco-360.co.uk
www.eco-360.co.uk

1. Introduction

1.1 Report Rationale

This report has been prepared at the request of Mr. Stuart Miller and Mrs. Frances Miller. It relates to the proposed redevelopment works at 82 Forest Road, Markfield, LE67 9UN (Central OS Grid Reference: SK 48513 09979). For this report, a biodiversity impact assessment calculation has been made. This document should be read in conjunction with the completed Excel spreadsheet. The survey was completed by Mr. Nathan O'Shea: BSc (Hons), Consultant Ecologist on the 11th May 2026.

1.2 Site Description

The site at 82 Forest Road is a residential property situated within the village of Markfield in Leicestershire. The surrounding area forms part of a rural–urban fringe landscape, characterised predominantly by residential dwellings set within plots of private garden land, interspersed with local roads, boundary vegetation, and occasional patches of semi-natural and improved grassland typical of the wider Charnwood Forest fringe.

Habitats recorded on site include mixed scrub dominated by species such as bramble (including Himalayan blackberry and European dewberry), young sycamore, common hazel, and honeysuckle, alongside areas of broadleaved secondary woodland comprising goat willow, ash, European plum, Norway maple and hazel. A medium-sized Norway spruce provides a single tree feature of moderate ecological value. Garden vegetation supports a diverse mix of ruderal and ornamental species including foxglove, wood avens, dock, cow parsnip, and Japanese camellia, offering moderate biodiversity potential. A small native hedgerow dominated by hawthorn provides a localised linear habitat feature of moderate value. The remainder of the site consists of artificial un-vegetated surfaces and built development, which contribute negligible biodiversity value but form part of the overall residential footprint.

Overall, the site is considered to comprise a typical suburban-edge habitat mosaic of poor to moderate ecological condition, with value primarily derived from its vegetated garden areas, scrub, and hedgerow features, set within a largely developed residential context.



Figure 1: An aerial map showing the location of the land proposed for re-development (red border around the area) in relation to some of the local landscape.

1.3 Proposals

Extend existing dwelling and erect new bungalow dwelling where driveway and existing garage is. Proposed plans can be found in **Appendix B**.

1.4 Scope of Report

This report aims to:

- Establish the total number of baseline and lost habitat, hedgerow, and river units at the site of the proposed scheme.
- Establish the total number habitat, hedgerow, and river units that are to be created, retained and/or enhanced under landscape and ecological mitigation proposals at the proposed works site.
- Determine whether the proposed scheme will result in a net loss, no net loss, or a net gain for biodiversity.
- Make further recommendations to gain the required 10% minimum net gain for biodiversity.

1.5 **Biodiversity Net Gain Relevant Policies**

The appraisal has been compiled with reference to the following relevant nature conservation legislation, planning policy and the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in England. These are:

- UK Biodiversity Action Plan (UKBAP)
- The Natural Environment and Rural Communities (NERC) Act 2006
- The UK Post-2010 Biodiversity Framework (2011-2020)
- Biodiversity 2020: A strategy for England's wildlife and ecosystem services
- The National Planning Policy Framework (NPPF) 2021
- Environmental Act 2021
- Local policy

A full explanation of these policies can be found within **Appendix C**.

2. Methodology

Personnel

Field surveys have been undertaken by licensed ecologist/s, members of the Chartered Institute of Ecology & Environmental Management (CIEEM) and members of Eco 360 staff.

The Biodiversity Net Gain Assessment has been carried out in line with CIEEM Guidelines on Good practice principles for development (2016), CIEEM A Practical Guide (2019) and BS 8683:2021 - Process for designing and implementing biodiversity net gain.

Survey of Baseline Habitats and Condition

Habitat typing and condition assessments are undertaken during a Preliminary Ecological Appraisals (PEA) or similar studies. The baseline also considers historic records for the site and local area via a desktop study (satellite imagery, previous ecological reports), as well as additional surveys to assess the presence/absence of species in certain situations. Conditions of habitats and hedgerows are assessed using the scoring systems provided in Technical Annex 1 of the Biodiversity Metric 4.0 Condition Assessment Sheet.

River assessments are carried out through a MoRPH5 Pro survey and River type survey. At least one MoRPH5 is undertaken per reach on site that will be directly or indirectly impacted with a further MorPH5 undertaken upstream to record a more “natural setting” if required. This data is then processed via Cartographer to give the condition of the rivers on site.

Calculations of Baseline Habitats

Using Geographic Information Software (GIS), baseline habitats are measured in hectares (ha) using vector layer polygons. These measurements are then input into the DEFRA Statutory Biodiversity Metric Calculation Tool. Habitat condition and connectivity are then input into the calculator. The area of habitat retained is then entered into the calculation to give a final sum of baseline units and lost unit.

Each habitat has a base score of 1, this is then multiplied by the size of the habitat (ha). The habitat is then multiplied by its distinctiveness:

- Very low – 0
- Low – 2
- Medium – 4
- High – 6

The next multiplier is based on the condition of the habitat:

- N/A-other/agricultural – 0
- Poor – 1
- Fairly poor – 1.5
- Moderate – 2
- Fairly good – 2.5
- Good – 3

Calculations of Post-development Habitats

The calculation is informed by planning design, landscape plans, and proposed ecological mitigation. Plans are georeferenced into GIS and are similarly measured in hectares (ha) using vector layer polygons. These measurements are then converted into input into the DEFRA Statutory Biodiversity Metric Calculation Tool. A target condition will be assigned to each new habitat following the same scores as above. The calculator will generate a proposed time to hit this target condition and difficulty score.

3. Baseline Calculation and Proposal Impact

3.1 Baseline Habitats

The table below outlines the existing site status based on the most recent field survey.

Habitats

Habitat Type	Area (m ²)	Distinctiveness	Distinctiveness Score	Condition	Condition Score	Total Habitat Units	Baseline Units Retained	Baseline Units Enhanced	Area Habitat Lost	Units Lost
Developed land; sealed surface	224	V. low	0	N/A - Other	0	0.00	0.00	0.00	0	0.00
Artificial unvegetated; unsealed surface	173	V. low	0	N/A - Other	0	0.00	0.00	0.00	173	0.00
Vegetated garden	285	Low	2	Condition Assessment N/A	1	0.06	0.052	0.00	25	0.005
Mixed scrub	123	Medium	4	Moderate	2	0.1	0.0584	0.00	50	0.04
Other woodland; broadleaved	305	Medium	4	Moderate	2	0.24	0.244	0.00	0	0.00
Individual tree	163	Medium	4	Moderate	2	0.15	0.15	0.00	0.00	0.00

Linear Habitats

Habitat Type	Length (m)	Distinctiveness	Distinctiveness Score	Condition	Condition Score	Total Hedgerow Units	Baseline Units Retained	Baseline Units Enhanced	Area Habitat Lost	Units Lost
Native hedgerow	17	Low	2	Moderate	2	0.0680	0.0680	0.00	0	0.00

3.2 Proposed Habitats

Habitat Type	Area (m ²)	Target Distinctiveness	Score	Target Condition	Score	Habitat Units Delivered
Developed land; sealed surface	248	V. low	1	N/A - other	0	0.00

Linear Habitats

No proposed linear habitats.

Habitat Type	Length (m)	Target Distinctiveness	Score	Target Condition	Score	Habitat Units Delivered
Line of trees	34	Medium	2	Moderate	2	0.0667

3.3 Total Net Unit Change

Area habitat summary	
Total Baseline Units	0.05942
Total Net Unit Change	-0.0450
Total Net % Change	-8.19
Trading Rules Satisfied	No - check trading summaries ▲

Hedgerow summary	
Total Baseline Units	0.0680
Total Net Unit Change	0.00
Total Net % Change	0.00
Trading Rules Satisfied	No - check trading summaries ▲

4. Recommendations

4.1 Total Net Unit Change

The development proposals currently do not meet the recommended 10% net gain in biodiversity units. In order to meet the requirements of both national and local planning policy, the development is required to compensate for the loss of vegetated garden and mixed scrub, and additionally provide a 10% biodiversity net gain.

The Net Unit change for area habitats on-site is calculated at **-0.0540 units**, which correlates to a **8.19% loss** in habitat biodiversity. This is to be achieved by the replacement of vegetated garden and mixed scrub for sealed surfaces.

There is no Net Unit change for linear habitats under the current proposals.

Overall, the current scheme does not meet minimum BNG requirements.

4.2 Recommendations

The development proposals currently do not meet the recommended 10% net gain in biodiversity units. Furthermore, the proposal does not meet trading rules, as the loss of scrubland habitat is not compensated with 'same broad habitat or higher distinctiveness'. In order to meet 10% net gain targets, an additional 0.0999 area habitat units are required. Furthermore, at least 0.0068 linear habitat units will be required.

To comply with the requirement for a minimum 10% net gain in biodiversity and satisfy trading rules, the following enhancements and additional habitat creation measures are recommended:

On-site creation/enhancement

Mixed scrub enhancement

The existing mixed scrub should be retained and enhanced as a structurally diverse early-successional habitat. Management should focus on selective control of dominant and invasive species, particularly Himalayan blackberry and dense sycamore regeneration, while retaining and promoting native species such as hazel and any native willow or hawthorn present. Enhancement measures should include the creation of small scalloped clearings or graded edges to increase light penetration and improve habitat heterogeneity. Cut material should be retained on site where appropriate to form habitat piles, providing additional refugia for invertebrates, small mammals, and reptiles. The objective is to maintain the scrub as a dynamic mosaic habitat while increasing native species diversity and structural variation.

In addition to enhancement of retained scrub habitat, a minimum of **17 m² of new mixed scrub habitat** should be created on site in order to fully compensate for the proposed loss of existing mixed scrub and to satisfy the relevant biodiversity trading rules. Newly created scrub should comprise a predominantly native species mix appropriate to the local area, incorporating species such as hazel, hawthorn, blackthorn, dog rose, and willow where appropriate. The habitat should be managed to establish a varied age and structural profile over time.

Woodland Enhancement

The existing broadleaved woodland should be managed to improve structural complexity and increase the proportion of native species within the canopy and understory. Selective thinning should be undertaken where necessary to reduce dominance by non-native or competitive species such as Norway maple and to promote a more varied age and light structure. Natural regeneration of native species, including hazel, ash (where resilient), and willow, should be encouraged, alongside retention of existing native individuals. Deadwood, both standing and fallen where safe, should be retained to support saproxylic invertebrates and fungal communities. The overall aim is to develop a more layered woodland structure with improved habitat value, whilst recognising the constraints of its small-scale, residential setting.

Hedgerow Enhancement

The existing hawthorn-dominated hedgerow should be enhanced to improve its ecological connectivity and structural condition. Management should include sympathetic trimming on a rotational basis to allow flowering and fruiting, encouraging increased provision of nectar, pollen, and berry resources. Gapping-up with locally appropriate native hedgerow species, such as hawthorn, hazel, blackthorn, or field maple where suitable, should be undertaken to increase density and structural diversity. Where space allows, a wider hedgerow margin or buffer strip should be encouraged to reduce edge pressure and enhance invertebrate habitat. The hedgerow should be managed to develop a multi-layered structure, supporting nesting birds and providing improved linear connectivity across the site and surrounding landscape.

Habitat Type	Area (m ²)	Target Distinctiveness	Score	Target Condition	Score	Habitat Units Delivered
Mixed scrub	90	Medium	2	Good	3	0.0405
Other woodland; broadleaved	305	Medium	2	Good	3	0.0854

Habitat Type	Length (m)	Target Distinctiveness	Score	Target Condition	Score	Habitat Units Delivered
Native hedgerow	17	Medium	2	Good	2	0.0317

Results

These combined area habitat enhancements result in an additional 0.8802 area habitat units and bring the total area habitat biodiversity net change to **0.1259 (+14.12%)**.

The recommended linear habitat enhancement results in an additional 0.0317 linear habitat units and bring the total hedgerow biodiversity net change to **0.0317 (+46.56%)**

Therefore, should these measures be implemented, the proposal will meet 10% net gain targets and satisfy trading rules.

Off-site creation/enhancement

Should the above on-site measures be considered unsuitable or unachievable the following measures can be taken:

Option 1: Consult the private market to purchase off-site biodiversity units. This should ideally be within the same LPA area or National Character Area to maximise the points gained.

Option 2: Acquire additional land off-site to use for biodiversity offsetting and habitat creation. This should ideally be within the same LPA area or National Character Area to maximise the points gained. These sites may be required to be registered as a biodiversity gain site, and habitat creation/enhancements and management must be secured for at least 30 years via a suitable legal agreement such as a planning obligation (section 106) with an LPA or a conservation covenant agreement with a responsible body.

Option 3: As a last resort, the client may wish to purchase Statutory Biodiversity Credits from the government. The client will need to provide evidence that the other above options have been explored in order to purchase these credits.

5. References

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6. Appendices

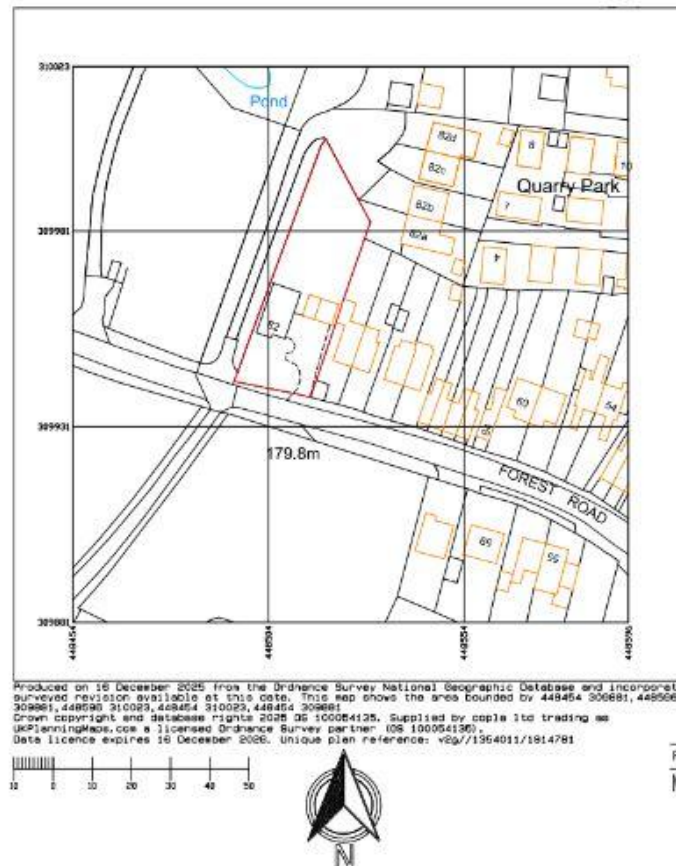
Appendix A: Existing Site Plan

Appendix B: Proposed Site Plan

Appendix C: Site Photographs

Appendix D: Biodiversity Net Gain Relevant Policies

Appendix A: Existing Site Plan



Printed or electronic copies of the plan can be scaled for planning purposes.

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Rev #	Date	Description	By
			slh

sturch
Tel: 07948 382917 e: sturch@gmail.com

Project
Mr & Mrs Miller

Client
Proposed Development at 82,
Forest Road, Markfield

Drawing
Location Plan

Dwg No: 01-2529_00 Rev #

Scale 1:1250 @A4 Date 17.12.25

Baseline Habitat Map



Key:

- Site Boundary
- Individual Trees
- H2a - Native Hedgerow
- H3h - Mixed Scrub
- U1b - Developed Land; Sealed Surface
- U1b - Vegetated Garden
- U1c - Artificial Unvegetated; Unsealed Surface
- W1g - Other Broadleaved Woodland

**Baseline
82 Forest Road
Markfield
LE67 9UN**

Appendix B: Proposed Site Plans



Proposed Habitat Map (Current Proposals)



Key:

- Site Boundary
- Individual Trees
- H2a - Native Hedgerow
- H3h - Mixed Scrub
- U1b - Developed Land; Sealed Surface
- U1b - Vegetated Garden
- W1g - Other Broadleaved Woodland

**Proposed
82 Forest Road
Markfield
LE67 9UN**

Appendix C: Site Photographs









Appendix D: Biodiversity Net Gain Relevant Policies

Environmental Act 2021

Part 6 on nature and biodiversity covers all areas of biodiversity net gain across two core sections. This Act mandates that all planning meets a minimum of a 10% gain in biodiversity calculated using the appropriate Metric and that the newly created habitats are secured for at least 30 years.

National Planning Policy Framework (NPPF)

While currently not a legal obligation, biodiversity and environmental net gains are mentioned in the revised National Planning Policy Framework (NPPF) within the following paragraphs (please refer to the NPPF for the full quotations):

Achieving sustainable development

Paragraph 8 Section C. “*an environmental objective – **to protect and enhance our natural, built and historic environment**; including making effective use of land, **improving biodiversity**, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.*”

Preparing and reviewing plans

Paragraph 32. “*Local plans and spatial development strategies should be informed throughout their preparation by a sustainability appraisal that meets the relevant legal requirements. This **should demonstrate how the plan** has addressed relevant economic, social and **environmental objectives** (including **opportunities for net gains**). Significant **adverse impacts on these objectives should be avoided** and, wherever possible, alternative options which reduce or eliminate such impacts should be pursued. Where significant adverse impacts are unavoidable, suitable mitigation measures should be proposed (or, where this is not possible, compensatory measures should be considered).*”

Identifying land for homes

Paragraph 73 section C. “*consider the opportunities presented by existing or planned investment in infrastructure, the area’s economic potential and the scope for **net environmental gains***”

Transport infrastructure:

Paragraph 104. “*Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*

*d) the environmental impacts of traffic and transport infrastructure can be identified assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for **net environmental gains**.*

Planning decisions:

Paragraph 119 “*Planning decisions and planning policy should a) encourage multiple benefits from both urban and rural land ... and taking opportunities to **achieve net environmental gains - such as developments that would enable new habitat creation.***”

Conserving and enhancing the natural environment

Paragraph 174 Section D. “**minimising impacts on and providing net gains for biodiversity**, including by establishing coherent ecological networks that are more resilient to current and future pressures”

Habitats and biodiversity

Paragraph 179. “To protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and **safeguard components of local wildlife-rich habitats** and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, **enhancement, restoration or creation**;

and b) promote **the conservation, restoration and enhancement of priority habitats**, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing **measurable net gains for biodiversity**.”

Paragraph 180. “When determining planning applications, local planning authorities should apply the following principles:

a) if **significant harm to biodiversity** resulting from a development **cannot be avoided** (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then **planning permission should be refused**;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the **loss or deterioration of irreplaceable habitats** (such as ancient woodland and ancient or veteran trees) **should be refused**, unless there are wholly exceptional reasons and a suitable compensation strategy exists;

and d) development **whose primary objective is to conserve or enhance biodiversity should be supported**; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can **secure measurable net gains for biodiversity** or enhance public access to nature where this is appropriate.”

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