Biodiversity Net Gain Report

Land Adjacent to 3 Laundry Cottages

Survey date: 8th December 2025

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1. Introduction

1.1 Report Rationale

This report has been prepared at the request of David Dranfield. Eco 360 were commissioned to undertake a Biodiversity Net Gain assessment at land adjacent to 3 Laundry Cottages, Alfreton, DE55 7AH (OS grid reference: SK 40817 55787). The survey effort involved both a desktop study and field survey.

The main purpose of this assessment was to identify the broad habitats (as stated in the JNCC Phase 1 Handbook) and the flora species present within the survey area, with any evidence of protected species usage and/or features of potential ecological interest also included. The field survey was carried out on the 8th December 2025 by Mr Nathan O'Shea: BSc (Hons), Ecologist.

1.2 Site Description

The site is located in a residential area to the western edge of the town of Alfreton. Habitats present are typical of residential garden areas including vegetated garden, sealed surfaces and artificial unsealed surfaces (gravel). Several young trees of various species are present within the site boundaries. The immediate surroundings are largely residential, with some areas of amenity green space also present and lines of trees creating a degree of habitat connectivity. The wider area is a combination of residential and rural, with large arable fields and smaller areas of woodland present to the north and west. Alfreton Park is located roughly 150m to the south of the site. The presence of several local parks and green spaces loosely connected by lines of trees/hedgerows gives the area high foraging and sheltering potential for bat and bird species.

Figure 1: An aerial map showing the location of the property proposed for re-development (outlined in red) in relation to the wider local landscape.



1.3 Proposals

The proposed works are for the removal of garage and greenhouse structures, and the construction of a residential dwelling with accompanying hard standing for parking/access.

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.

1.4 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 D.**

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 date 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 square meters (m^2) 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. As all of the trees on site are of 'small' size, tree habitat hasn't been included in the baseline calculations due to BNG regulations omitting small trees (<30cm DBH) from baseline private gardens.

Habitats

Habitat Type	Area (m²)	Distinctiveness	Distinctiveness Score	Condition	Condition Score	Total Habitat Units	Baseline Area Retained	Baseline Area Enhanced	Area Lost	Units Lost
Vegetated garden	297	Low	2	Condition assessment N/A	1	0.06	0	0	297	0.06
Developed land; sealed surface	120	Very low	0	N/A - Other	0	0.00	0	0	120	0.00
Artificial unvegetated, unsealed surface	90	Very low	0	N/A - Other	0	0.00	0	0	90	0.00

Linear Habitats

Habitat Type	Length (m)	Distinctiveness	Distinctiveness Score	Condition	Condition Score	Total Hedgerow Units	Baseline Units Retained	Baseline Units Enhanced	Length Lost	Units Lost
Non-native/ ornamental hedgerow	49	Very low	1	Poor	1	0.05	0.05	0.00	0	0.00

3.2 Proposed Habitats

Habitats

Based on preliminary site plans only. No further habitat creation proposals have been provided by client.

Habitat Type	Area (m^2)	Target Distinctiveness	Score	Target Condition	Score	Habitat Units Delivered
Developed Land; Sealed Surface	205	Very low	0	N/A - Other	0	0.00
Vegetated Garden	302	Low	2	Condition N/A	1	0.04

Linear Habitats

No changes to linear habitats have been proposed.

3.3 Total Net Unit Change

The Net Unit change for area habitats on-site is calculated at **-0.02** units, which correlates to a **–33.39%** loss in habitat biodiversity. This is due to the re-development of some garden areas into areas of hard standing (dwelling and parking/access).
As the proposed development is not set to impact existing linear habitats, there is no net unit change for linear habitats.
Overall, the current scheme does not meet minimum BNG requirements.

4. Recommendations

The current proposal does not meet the minimum required 10% net gain in biodiversity units on-site. In order to comply with the minimum required 10% net gain in biodiversity, the following habitat units are required:

- **0.03 area habitat units of at least 'low' distinctiveness.**

The following additional habitat creation and enhancement recommendations can be made:

On-site creation/enhancement

Due to the small scale of the site, on-site creation and enhancement measures are limited. Due to the site becoming privately owned residential sites, habitat creation would be unable to be secured within private garden on site for the 30 years required. It is recommended that off-site units are sought after.

Off-site creation/enhancement

Off-site habitat compensation measures can be south with the following options:

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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Treweek J. et al. (2009) Scoping study for the design and use of biodiversity offsets in an English Context.

Treweek J., Butcher B., and Temple H. (2010) Biodiversity offsets: possible methods for measuring biodiversity losses and gains for use in the UK. CIEEM In Practice.

6. Appendices

Appendix A: Baseline habitat map and plan

Appendix B: Proposed Site Plans

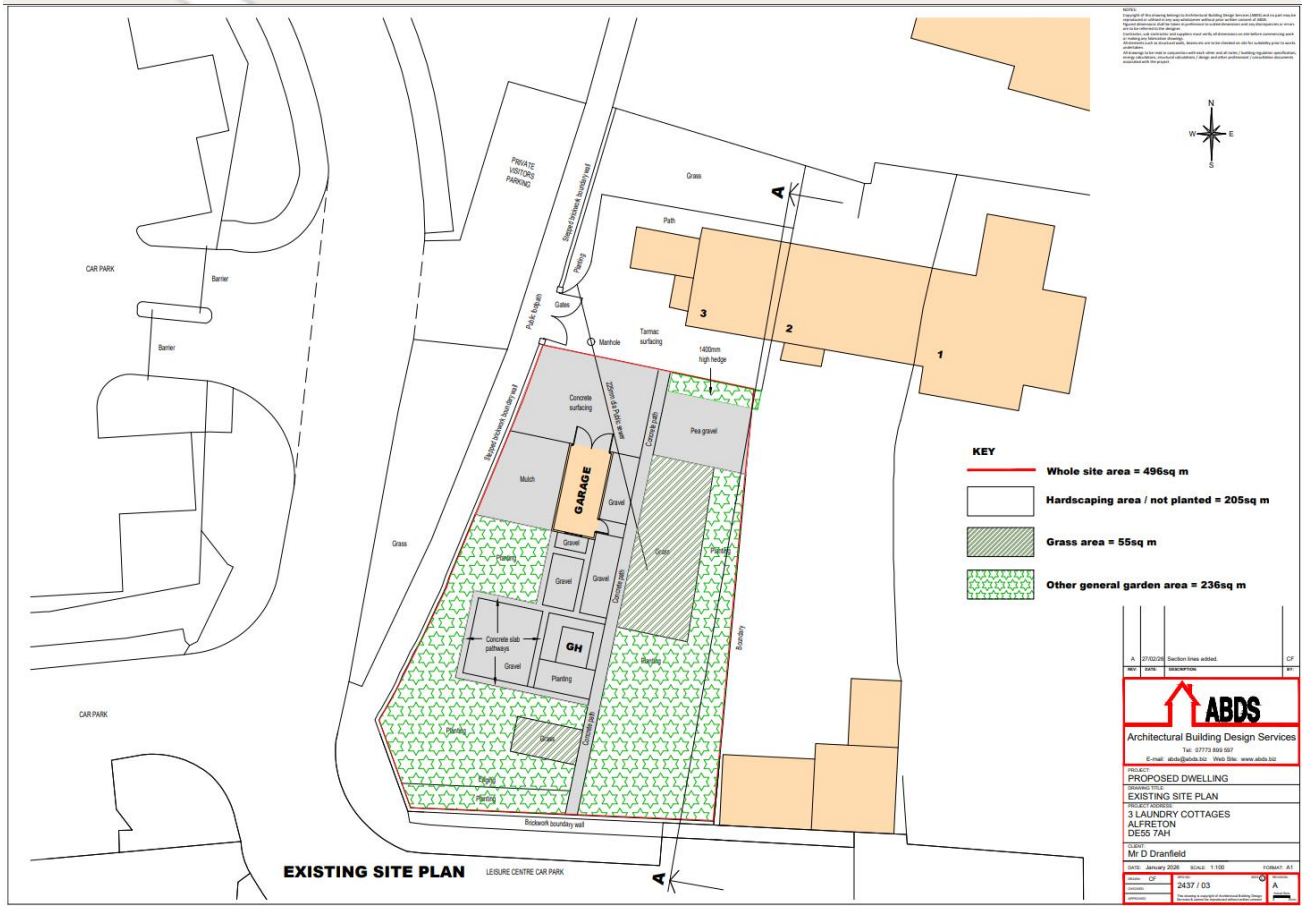
Appendix C: Proposed habitat map

Appendix D: Site Photographs

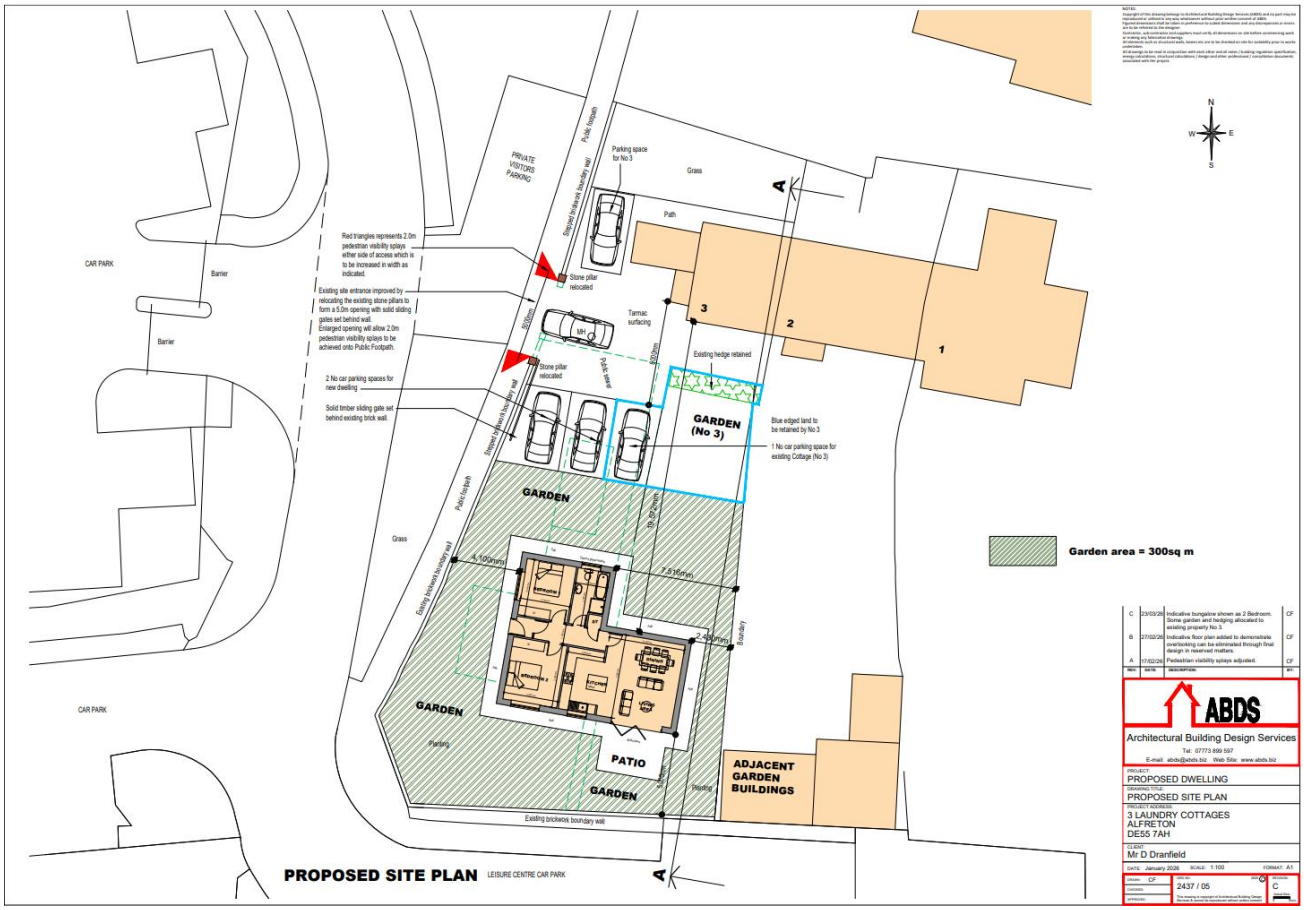
Appendix E: Biodiversity Net Gain Relevant Policies

Appendix A: Baseline habitat map and plan

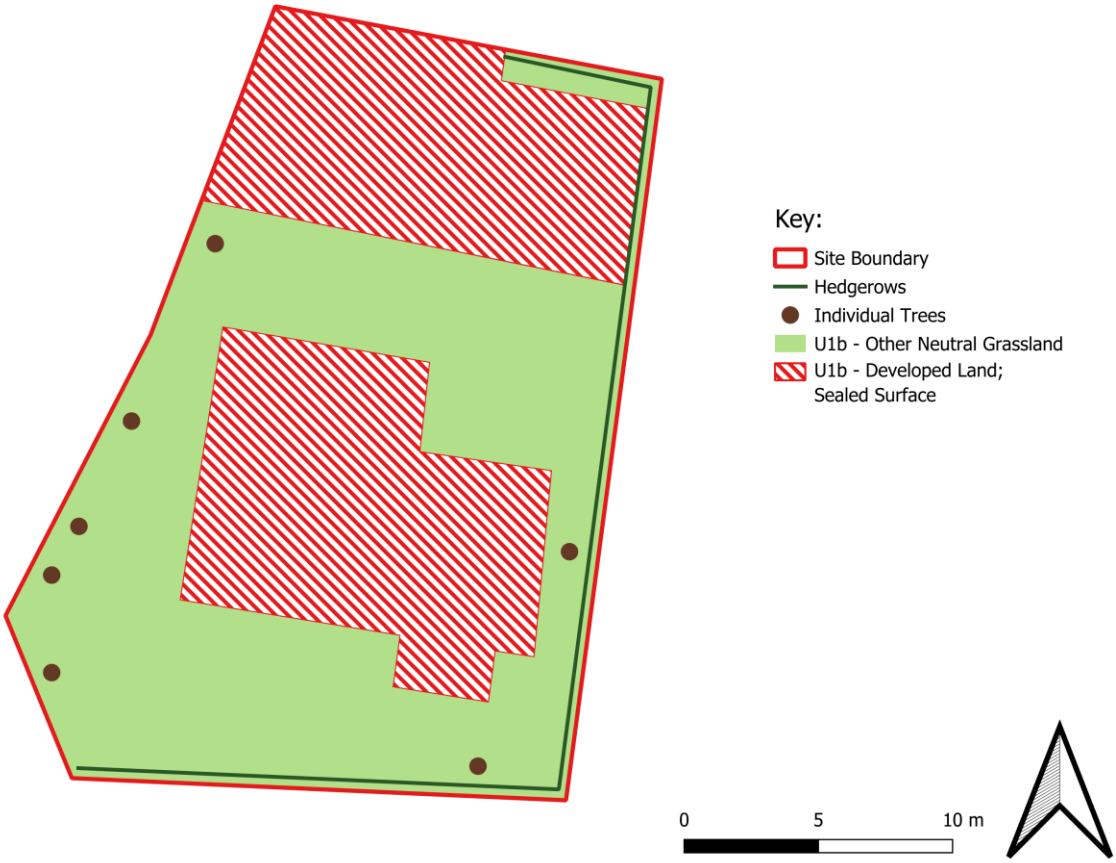




Appendix B: Proposed Site Plans



Appendix C: Proposed habitat map



Appendix D: Site Photographs



Img.1. North site.



Img.2. N-E site.



Img.3. S-E site.



Img.4. S-W site.



Img.5. S-W site.



Img.6. Central.

Appendix E: 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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The survey results purport the current status of the site and its potential for protected species utilisation at the time of surveying. It should not be viewed as a complete list of the possible flora and fauna species that could be using the site at different times of the year.

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No reliance should be made on any such comments in relation to the structural integrity of the features located on the surveyed site. All information within the report is based solely on evidence that has been found on site during the service provided. No individual opinion or inference will be made other than that of the suitably qualified ecologist appointed to the project.