

# BIODIVERSITY IMPACT ASSESSMENT

Land Adjacent to 57 Cheadle Road,  
Tean, Stoke-on-Trent ST10 4DR

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Date: March 2026



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*Document History and Status:*

| Revision Number | Author                  | Date       |
|-----------------|-------------------------|------------|
| 1               | Lizi Pimlott MSc MCIEEM | 22/08/2025 |
| 2               | Lizi Pimlott MSc MCIEEM | 04/03/2026 |

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**Validity**

Due to the dynamic nature of ecological conditions, the results of the survey(s) and related conclusions and recommendations as contained within this report should only be considered valid for up to 18 months from the date the last survey was undertaken.

Any alterations to the site proposals may invalidate the recommendations contained within this report.

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# 1. Summary

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purpose of Report</b>            | To accompany the Small Sites Metric to determine whether the proposed development delivers mandatory biodiversity net gain.                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Biodiversity Net Gain Target</b> | 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Results</b>                      | <p>The proposed development does not meet the 10% biodiversity net gain target.</p> <p>There is a loss of -0.1918 units for area habitats (-48.25%) and -1.7200 for units for hedgerows (-95.56%).</p> <p>A total of 0.2315 area habitat units must be provided and, at the time of writing this report, there was a deficit of 0.04 area habitat units.</p> <p>A total of 1.9000 hedgerow units must be provided and, at the time of writing this report, there was a deficit of 1.82 hedgerow units.</p> |
| <b>Recommendations</b>              | There may be scope to reduce the deficit of area habitat units and hedgerow units via the retention of trees and hedgerow. However, this will not be sufficient to deliver a 10% biodiversity net gain onsite and offsite measures will also need to be implemented.                                                                                                                                                                                                                                       |

## 2. Introduction

2.1.1. **Table 1** presents an overview of the site and details of the proposed development, as well as the Biodiversity Net Gain (BNG) target for the proposed development.

**Table 1:** Overview of the Site

|                                         |                                                                                                                                                                                                                                                                    |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Site Name</b>                        | Land Adjacent to 57 Cheadle Road, Tean, Stoke-on-Trent ST10 4DR                                                                                                                                                                                                    |
| <b>Client Name</b>                      | Peter Dawson                                                                                                                                                                                                                                                       |
| <b>Proposed Development Description</b> | The construction of a single dwelling with associated access, parking and garden.<br><br>See <b>Figure 1</b> for proposed development plan.                                                                                                                        |
| <b>Site Area</b>                        | 590m <sup>2</sup>                                                                                                                                                                                                                                                  |
| <b>Grid Reference</b>                   | SK 00823 39883<br><br>See <b>Figure 2</b> for location plan.                                                                                                                                                                                                       |
| <b>Site Description and Context</b>     | The site comprises a garden to the south of 57 Cheadle Road. It is located to the west of Cheadle Road and is surrounded by residential development to the north, south and east with agricultural land adjacent and the river Tean approximately 40m to the west. |
| <b>Biodiversity Net Gain Target</b>     | 10%                                                                                                                                                                                                                                                                |

## 3. Methodology

### 3.1 Survey Details

3.1.1. This Biodiversity Impact Assessment (BIA) has been informed by the completion of the following:

- Desk study;
- Site walkover; and,
- Small Sites Metric (SSM).

### 3.2 Site Walkover

3.2.1. A site walkover was completed by Peter Dawson on 22.08.2025. Photographs of the site were provided to Lizi Pimlott MSc MCIEEM to complete the BIA.

### 3.3 Supporting Information

3.3.1. Further information regarding survey and report objectives, methodologies and references, as well as a glossary and a summary of relevant international and national legislation and policy are provided in external website links provided in **Appendix 1**.

3.3.2. Local or site-specific information is referenced using footnotes in this report, where relevant.

### 3.4 Limitations

3.4.1. No ecology surveys have been completed at the site.

3.4.2. The site walkover and the desk study show that the site comprises vegetated and unvegetated garden with garden buildings. Features within the garden that have been mapped separately include a native hedgerow along the south and east site boundaries (not priority as it forms the curtilage of a property) and two coniferous trees that are medium in size. The area

habitats present within the site do not require baseline condition assessments and the condition of hedgerows and trees are fixed within the SSM.

- 3.4.3. The site walkover and the desk study are considered to provide sufficient information for the completion of the SSM and for the identification of any other potential ecological constraints. Additional surveys by an ecologist are unlikely to yield any data that would materially affect the BNG outcomes or any recommendations in relation to other ecological considerations.

## 4. Desk Study

### 4.1 Designated Sites

- 4.1.1. No statutory designated sites were identified within 2km of the site.
- 4.1.2. No non-statutory designated sites were identified within 1km of the site<sup>1</sup>.

### 4.2 Habitats

- 4.2.1. No irreplaceable or priority habitats were identified within 1km of the site.
- 4.2.2. The river Tean is located 40m to the southwest of the site. This is not a priority river but is a statutory main river.

### 4.3 Species

- 4.3.1. No protected species records were identified within or adjacent to the site<sup>23</sup>.
- 4.3.2. Great crested newt class licence returns were identified approximately 225m northwest and 840m northeast of the site.
- 4.3.3. A bat European Protected Species Licence (EPSL) was identified 2km northwest of the site (ref: 2017-30264-EPS-MIT). This was dated 2017-2018 for the destruction of a resting place of common pipistrelle *Pipistrellus pipistrellus*.
- 4.3.4. The habitats on the site comprise vegetated and unvegetated garden with managed hedgerow and coniferous trees. The trees and shrubs could provide opportunities for nesting birds and for small animals such as hedgehogs *Erinaceus europaeus* to shelter.

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<sup>1</sup> Staffordshire Moorlands Local Plan <https://www.staffsmoorlands.gov.uk/localplan>

<sup>2</sup> Magic Map application <https://magic.defra.gov.uk/MagicMap.html>

<sup>3</sup> National Biodiversity Network Atlas <https://nbnatlas.org/>

4.3.5. Opportunities for other protected or notable species are considered to be low, based on the habitats present, the usage of the site and the proximity of the site to a busy road.

## 5. Biodiversity Impact Assessment

### 5.1 Use of the SSM

5.1.1. There are restrictions on the use of the SSM to calculate Biodiversity Net Gain (BNG).

5.1.2. The SSM may only be used for small sites comprising:

- residential development where the number of dwellings is between 1 and 9 on a site of an area 1 hectare or less, or if the number of dwellings is unknown, the site area is less than 0.5 hectares; or,
- commercial development where floor space created is less than 1,000 square metres or total site area is less than 1 hectare; or,
- development that is not the winning and working of minerals or the use of land for mineral-working deposits; or,
- development that is not waste development.

5.1.3. In addition, the SSM may only be used:

- where only the habitats available in the SSM are present on-site;
- where no priority habitats are present onsite;
- where no statutory protected sites or habitats are present; and,
- where no European protected species are present.

5.1.4. The proposed development comprises the construction of one dwelling with an area of 590m<sup>2</sup> and is therefore classified as a small site.

5.1.5. The habitats onsite comprise vegetated and unvegetated garden, buildings, individual trees and native hedgerow. These are all available in the SSM and none are priority habitats. Native hedgerows that form the curtilage of dwellings and gardens are not priority habitats.

5.1.6. The desk study did not identify the presence of any statutory designated sites or habitats within 500m of the site.

5.1.7. The desk study did not identify any records of European protected species nor any habitats that are considered to be suitable for such species within or adjacent to the site.

5.1.8. The use of the SSM for this site is therefore considered to be appropriate.

## 5.2 Strategic Significance

5.2.1. The site is not allocated for biodiversity purposes in the Staffordshire Moorlands Local Plan. Therefore, the strategic significance for the site is considered to be low.

## 5.3 Pre-Development Habitats

5.3.1. **Table 3** provides the details of the baseline habitats at the site. This should be read in conjunction with the following, which can be found at the end of this report:

- **Figure 3** - baseline habitat plan; and,
- **Appendix 2** - site photographs.

**Table 3:** Pre-Development Habitats

|                                            |                                                                                                                                                                                                          |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Vegetated Garden</b><br><b>u1 828</b>   | The site predominantly comprises vegetated garden with areas laid to lawn as well as shrubs and planting beds.<br><br>Area: 490m <sup>2</sup>                                                            |
| <b>Unvegetated Garden</b><br><b>u1 829</b> | Paved and stone covered pathways and patio areas are present through the garden.<br><br>Area: 90m <sup>2</sup>                                                                                           |
| <b>Buildings</b><br><b>u1b5</b>            | Three garden buildings are present within the site including two sheds and a greenhouse.<br><br>Area: 10m <sup>2</sup>                                                                                   |
| <b>Individual Tree</b><br><b>u1 200</b>    | Two medium sized non-native coniferous trees are present within the site.<br><br>A few small sized trees are also present but these are not required to be mapped individually within vegetated gardens. |

|                                |                                                                                                                                                                                                                                                                                                         |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                | Area: 326m <sup>2</sup>                                                                                                                                                                                                                                                                                 |
| <b>Native Hedgerow<br/>h2a</b> | <p>A managed hedgerow borders the south and east site boundaries. This includes native species such as hawthorn <i>Crataegus monogyna</i> and wych elm <i>Ulmus glabra</i>.</p> <p>Native hedgerows that form the curtilage of dwellings and gardens are not priority habitats.</p> <p>Length: 450m</p> |

## 5.4 Post-Development Habitats

5.4.1. **Table 4** provides the details of the habitats that will be retained and created within the proposed development. This should be read in conjunction with the following, which can be found at the end of this report:

- **Figure 4** – post development habitat plan; and,
- **Appendix 3** – SSM.

**Table 4:** Post-Development Habitats

|                                      |                                                                                                                                                |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Buildings<br/>u1b5</b>            | <p>One new dwelling will be constructed.</p> <p>Area: 150m<sup>2</sup></p>                                                                     |
| <b>Vegetated Garden<br/>u1 828</b>   | <p>Vegetated garden will be created including new hedgerow and shrub planting.</p> <p>Area: 290m<sup>2</sup></p>                               |
| <b>Unvegetated Garden<br/>u1 829</b> | <p>A parking space and a turning area, as well as paved areas around the dwelling.</p> <p>Area: 150m<sup>2</sup></p>                           |
| <b>Individual Tree<br/>u1 200</b>    | <p>One medium sized tree will be retained. The second will be removed.</p> <p>Area: 163m<sup>2</sup></p>                                       |
| <b>Native Hedgerow<br/>h2a</b>       | <p>A section of hedgerow along the south site boundary will be retained. The remainder of the hedgerow will be removed.</p> <p>Length: 20m</p> |

## 5.5 Net Change in Biodiversity

- 5.5.1. The baseline biodiversity value of the site is 0.3975 units for area habitats and 1.8000 units for hedgerows.
- 5.5.2. The post development biodiversity value of the site is 0.2057 units for area habitats and 0.0800 units for hedgerows.
- 5.5.3. This is a loss of -0.1918 units for area habitats (-48.25%) and -1.7200 for units for hedgerows (-95.56%).

## 6. BNG Delivery

### 6.1 General Recommendations

- 6.1.1. This report contains recommendations on measures for achieving BNG. These recommendations do not constitute a design for BNG. In submitting these recommendations, LP Ecological Services Ltd has no design liability associated with these recommendations for BNG. The strategy sets out the criteria which a landscape team can use to design the creation and management of the site.
- 6.1.2. A 30-year habitat management and monitoring plan or a Landscape and Ecological Management Plan is typically required to accompany biodiversity net gain calculations. However, given that onsite habitat creation comprises vegetated garden and unvegetated habitats only, this may not be applicable to the proposed development.

### 6.2 Summary of Results

- 6.2.1. The 10% biodiversity net gain target has not yet been met.
- 6.2.2. A total of 0.2315 area habitat units must be provided and, at the time of writing this report, there was a deficit of 0.04 area habitat units.
- 6.2.3. A total of 1.9000 hedgerow units must be provided and, at the time of writing this report, there was a deficit of 1.82 hedgerow units.

### 6.3 Onsite Measures

- 6.3.1. The post-development private garden has no public access, and biodiversity net gains cannot be legally secured. As these gains cannot be secured, habitats created within private gardens can

only be recorded as vegetated or unvegetated garden for which target condition is not applicable.

6.3.2. This means that the 10% biodiversity net gain cannot be delivered through onsite habitat creation and enhancement measures.

6.3.3. The deficit of area habitat units could be reduced if both medium sized trees can be retained in the proposed development.

6.3.4. The deficit of hedgerow units could be reduced if more of the native hedgerow could be retained along Cheadle Road.

## 6.4 Offsite Measures

6.4.1. A 10% net gain in biodiversity cannot be delivered on the site itself. Therefore, there will be a requirement to provide these habitat units offsite via one of the following options:

- Purchasing biodiversity units from an existing biodiversity net gain site already registered on the Biodiversity Net Gain Register. This will be via a financial contribution to the relevant third party.
- Purchasing statutory credits using the credit sales service. This should be a last resort if neither of the above options are achievable, as these credits are not guaranteed to be within the locale of the development site.

## 7. Other Ecological Considerations

### 7.1 Nesting Birds

- 7.1.1. The site contains trees, shrubs and hedgerows which could be used by nesting birds.
- 7.1.2. Vegetation clearance should be undertaken outside of the nesting bird season (March to August), insofar as possible. Alternatively, a nesting bird check should be completed by a suitably qualified ecologist within 48 hours of the vegetation clearance being undertaken to ensure no active nests are present.

### 7.2 Hedgehogs and Other Small Animals

- 7.2.1. The site contains shrubs and hedgerows which could be used by small animals such as hedgehogs to shelter.
- 7.2.2. Vegetation clearance should start next to Cheadle Road and be completed in a westerly direction to allow small animals to disperse away from the main road. Taller vegetation should be cut to 30cm and checked prior to being cleared to ground level.
- 7.2.3. Refugia should be dismantled by hand and checked prior to removal.

### 7.3 Other Enhancement Opportunities

- 7.3.1. Bat and/or bird boxes could be installed on the new buildings. These could be integrated or mounted to external walls.

## 8. Figures

- **Figure 1** - Proposed Development Plan
- **Figure 2** - Site Location Plan
- **Figure 3** – Baseline Habitat Plan
- **Figure 4** – Post-Development Habitat Plan

## Figure 1 - Proposed Development Plan

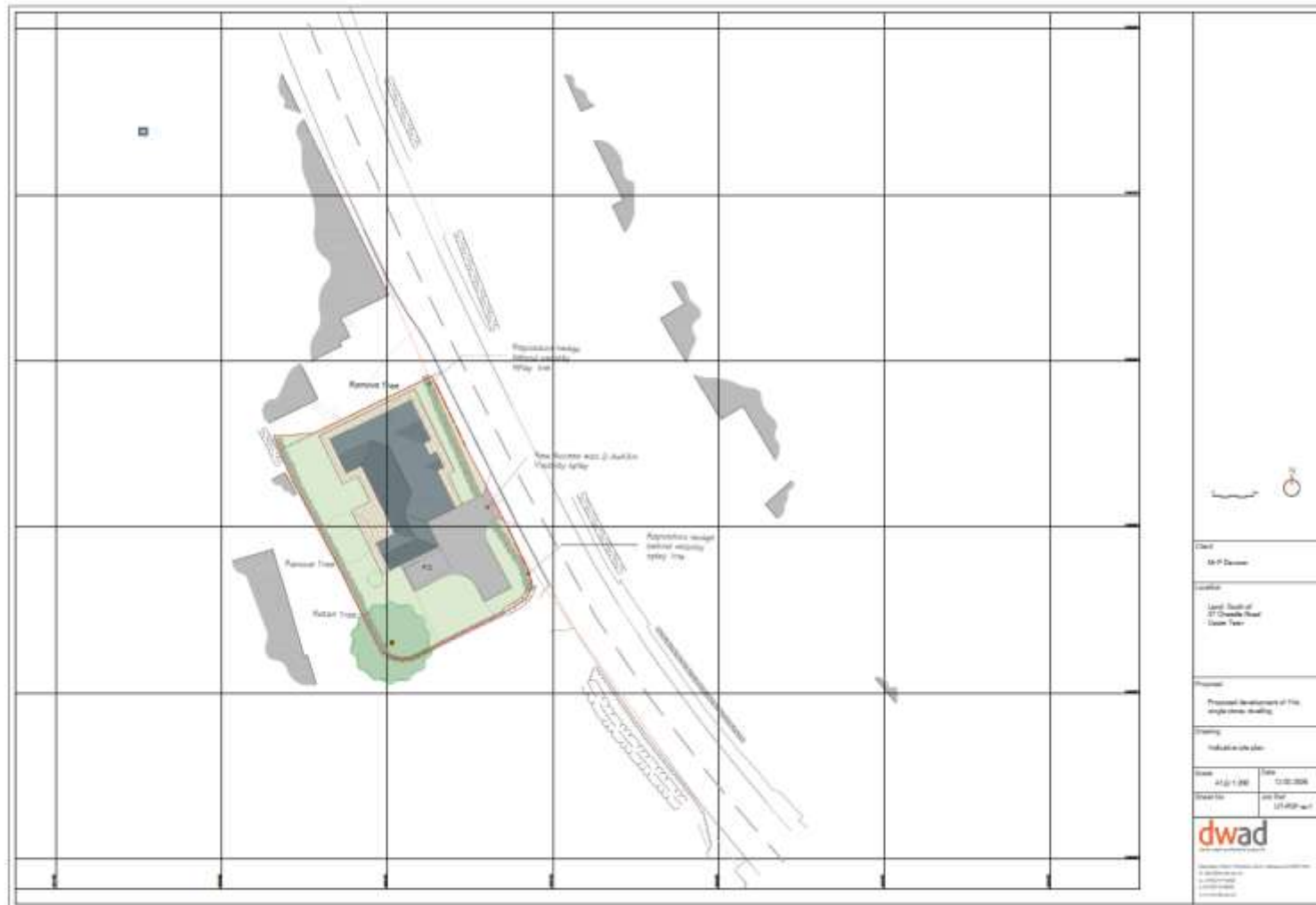


Figure 2 - Site Location Plan



Figure 3 – Baseline Habitat Plan



Figure 4 – Post-Development Habitat Plan



## 8. Appendices

- **Appendix 1** - Supporting Information
- **Appendix 2** – Site Photographs
- **Appendix 3** – SSM

## Appendix 1 – Supporting Information

Supporting information regarding this report can be found at the following website links:

- [Methodologies](#) – the objectives and methodologies for the surveys undertaken to inform this report.
- [References](#) - the sources of information which are typically consulted during the design and completion of ecology surveys and the production of ecological reports.
- [Glossary](#) - a glossary of ecological terms and acronyms that may be used in this report.
- [Legislation and policy](#) - a summary of international and national legislation and planning policy which may be relevant to the proposed development in relation to biodiversity.

## Appendix 2 - Site Photographs





## Appendix 3 – SSM

Appended as a separate document.