

BRITISH STANDARD 5837

TREE SURVEYS ARBORICULTURAL IMPLICATION STUDIES

TPO/PLANNING ADVICE/ PROJECT MANAGEMENT

TREE INVENTORIES AND RISK ASSESSMENTS

WOODLAND MANAGEMENT PLANS

TREE PLANTING SCHEMES

TPO RE-SURVEY



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Pilsworth Road,  
Heywood

Ecology and Biodiversity Net Gain Assessment

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# CONTENTS

|          |                                                           |           |
|----------|-----------------------------------------------------------|-----------|
| <b>1</b> | <b>Introduction.....</b>                                  | <b>2</b>  |
| 1.1      | Background.....                                           | 2         |
| 1.2      | Purpose of Report.....                                    | 2         |
| 1.3      | Protected Species Legislation .....                       | 3         |
| 1.3.1    | Birds.....                                                | 3         |
| 1.3.2    | Bats.....                                                 | 3         |
| <b>2</b> | <b>Field Survey Methods.....</b>                          | <b>4</b>  |
| 2.1      | Survey Aims and Objectives .....                          | 4         |
| 2.2      | Survey Methods.....                                       | 4         |
| 2.2.1    | Ecological Walkover Survey .....                          | 4         |
| <b>3</b> | <b>Survey Results.....</b>                                | <b>6</b>  |
| 3.1      | Site Description .....                                    | 6         |
| 3.1.1    | Habitat Description .....                                 | 6         |
| 3.2      | Protected Species.....                                    | 7         |
| 3.2.1    | Potential Bat Tree Roosts (Low Suitability).....          | 7         |
| 3.2.2    | Breeding Birds .....                                      | 7         |
| 3.2.3    | Other Protected or Notable Species.....                   | 7         |
| <b>4</b> | <b>Summary &amp; Recommendations.....</b>                 | <b>8</b>  |
| 4.1      | Habitats.....                                             | 8         |
| 4.1.1    | Summary and Recommendations .....                         | 8         |
| 4.2      | Protected Species.....                                    | 8         |
| 4.2.1    | Birds.....                                                | 8         |
| 4.2.2    | Other Protected Species .....                             | 9         |
| 4.3      | Ecological Enhancements .....                             | 9         |
| 4.3.1    | Bat and Bird Boxes.....                                   | 9         |
| 4.3.2    | Plants for Pollinators and Birds.....                     | 9         |
| 4.4      | Biodiversity Net Gain.....                                | 10        |
| 4.4.1    | Proposals and Biodiversity Recommendations Overview ..... | 10        |
| 4.4.2    | Biodiversity Metric Calculation Results .....             | 10        |
| <b>5</b> | <b>Appendix .....</b>                                     | <b>11</b> |

# 1 Introduction

## 1.1 Background

Kingdom Ecology have carried out an Ecological Walkover Survey and Biodiversity Net Gain Assessment of a small area of amenity land located at Pilsworth Road, Heywood, Greater Manchester, OL10 3AE (National Grid Reference SD 8410 9749).

The assessment has been carried out to identify any ecological constraints which should be considered during proposed works to redevelop the site and to allow an assessment as to whether the development will deliver a biodiversity net gain.

The development proposals are to construct a new two-storey building containing 8 flats with associated landscaping to the front and rear.

Field surveys were completed in November 2023. Surveys were completed by Sofia Fabiano (BSc, MSc, QCIEEM). Sofia has suitable experience of undertaking habitat and protected species surveys as a professional ecological consultant with over three years experience.

## 1.2 Purpose of Report

This report provides the findings of field surveys undertaken at the site. Surveys aimed to identify habitats and species which are either of importance in terms of their conservation value or are afforded statutory legal protection. The presence of such habitats or species would form a material consideration during the planning process and could pose a constraint to the redevelopment of the site.

Survey comprised of an initial ecological walkover survey of the site including a daytime assessment of the suitability of the affected trees to support roosting bats.

Following a description of the survey findings and an evaluation of habitats at the site, the report goes on to make recommendations for further works, mitigation, and ecological enhancement measures where relevant.

A Biodiversity Metric Assessment for the site pre- and post-development has also been carried out to determine the level of habitat compensation required to allow the development to achieve a biodiversity net gain.

## 1.3 Protected Species Legislation

### 1.3.1 Birds

All wild birds in England and Wales are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs.

### 1.3.2 Bats

All British bat species are fully protected under the Wildlife and Countryside Act 1981 (as amended) and through their inclusion in Schedule II of the Habitats Regulations 2010 which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive") which defines European protected species of animals.

British bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

Taken together, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport bats, unless acquired legally.
- Sell, barter or exchange bats.

A bat roost is interpreted as "any structure or place, which any wild bat uses for shelter or protection." (Bat Conservation Trust 2016<sup>1</sup>). A bat roost is protected whether or not bats are present at the time.

All species of British bat are considered a European Protected Species (EPS). The Conservation of Habitat and Species Regulations (2010) provide derogation against certain offences which could potentially affect an EPS through the EPS Licensing system.

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<sup>1</sup> Bat Conservation Trust (2016) 'Bat Surveys: Good Practice Guidelines 3<sup>rd</sup> Edition'

## 2 Field Survey Methods

### 2.1 Survey Aims and Objectives

The survey aim was to assess the site as to its ecological importance by assessing the value of habitats and their suitability to support any protected or notable species. The purpose of this was to highlight any ecological constraints associated with future development proposals.

Survey comprised of an ecological walkover survey, this included an assessment of habitats at the site in terms of their suitability to support any protected species including breeding birds and bats.

Species that are considered unlikely to be significantly affected by the proposed development, even if known to be present in the general vicinity, were 'scoped out' of the assessment.

Survey also aimed to identify opportunities for ecological enhancement and to inform potential mitigation measures, if required, to ameliorate any negative impacts attributable to the proposed works.

### 2.2 Survey Methods

#### 2.2.1 Ecological Walkover Survey

An Ecological Walkover of the site was undertaken on the 22<sup>nd</sup> November 2023.

The aims of the walkover survey were to:

- identify areas or habitats that are of particular ecological interest for nature conservation and which require more detailed investigation;
- provide a broad botanical description of habitats present based upon UKHab classifications;
- provide additional information regarding incidental observations of protected species or non-native, invasive species;
- to assess the site as to its ecological importance by assessing the value of habitats and their suitability to support any protected or notable species (including badgers, bats and breeding birds).

A map of habitats recorded at the study site is shown in Figure 1. Typical habitats recorded at the site are also shown in photographs in the Appendix.

### **2.2.5 Bat Tree Scoping Survey**

A visual inspection of mature trees present was made to assess their bat roosting potential. The inspection was made from ground level during daylight conditions using binoculars and a high-powered torch to assess the potential of any cracks and holes to support bat roosts, and to search for evidence of bat use such as droppings, scratch marks, staining etc. The survey was undertaken on the 23<sup>rd</sup> November 2023.

In addition to identifying actual bat roosts the surveys also aimed to assess the suitability of the trees to support bats and consequently the likelihood of a bat roost being present that did not exhibit obvious field signs.

Roost suitability was assessed by examining structural features and surrounding habitat. Structural features that could influence the suitability of a tree to support roosting bats include:

- frost cracks
- trunk and branch splits
- woodpecker holes
- rot holes where branches have been removed
- hollow sections of trunk, branches and roots
- loose bark
- cavities beneath old root buttresses and coppice stools
- dense ivy
- bat or bird boxes

Important habitat features surrounding individual trees, which could influence roost potential include; whether the trees are in a semi-rural or parkland location, proximity to a significant linear feature (e.g. watercourse, mature hedgerow, wooded lane) or proximity to known bat roosts etc.

## 3 Survey Results

### 3.1 Site Description

The site comprises of the eastern half of a roughly triangular area of amenity grassland with scattered mature trees and recently planted young saplings. The site measures approximately 0.1 ha in area.

The site is located in an urban setting in Heywood town. Pilsworth Road runs to the western boundary of the triangle of land, Tower Street runs along the south-eastern boundary and Dickens Street along the northern boundary. Surrounding habitats comprise mainly of residential housing. Roads surrounding the site itself are brightly lit by street lighting of an evening.

Habitats around the site are considered to be of 'low' value for foraging bats and the site is considered to be relatively isolated from areas of ecologically valuable habitat by the surrounding housing and road networks.

#### 3.1.1 Habitat Description

In summary, habitats at the site comprise predominately of species-poor, modified grassland with scattered young trees as well as a semi-mature oak tree.

The site is located on a corner between two busy roads and is set on a raised mound which slopes down towards the adjoining footpaths at the east and south of the site. The patch of land comprises mostly of modified grassland which is mown short (Target Note 1). The species present include perennial rye, Yorkshire fog, dandelion, white clover and creeping buttercup. The grassland was found to be species-poor with approximately four species per metre square.

There are 11 recently planted young trees scattered at the site, including young rowan trees, silver birch, hawthorn and cherry. These trees all have a diameter at breast height (DBH) of less than 7 cm.

Additionally, there is a semi-mature oak tree which is located at the north east corner of the site.

There is a small area of hardstanding at the southern corner of the site, consisting of a few steps from the pavement to the edge of the mound (Target Note 2).

Habitats recorded at the study site are shown on Photographs and target noted on Figure 1 in the Appendix.

For the purposes of the follow-on Biodiversity Net Gain Assessment, condition assessments of relevant habitats have been undertaken.

The area of modified grassland was found to be species-poor with approximately four species per metre square. Therefore, with regards to the biodiversity net gain condition assessment, the grassland is assessed as being in a 'poor' condition as it fails essential criterion A.

With regards to the semi-mature oak tree, the tree is assessed as being in a 'moderate' condition as it passes 4 out of the 6 tree condition criteria (tree passes criteria A, B, E and F).

## **3.2 Protected Species**

### **3.2.1 Potential Bat Tree Roosts (Low Suitability)**

None of the trees at the site were observed to support any obvious high-value features for roosting bats. None of the trees support any obvious splits, cavities, woodpecker holes, significant lifting bark, areas of decay or significant knot holes.

Only a semi-mature oak tree will be removed as part of development proposals. This tree does not support any suitable bats roosting features whatsoever.

### **3.2.2 Breeding Birds**

The semi-mature oak tree located at the site offer suitable bird nesting habitat during the breeding season.

### **3.2.3 Other Protected or Notable Species**

It is considered unlikely that any other protected species would be present within the proposed development areas.

## 4 Summary & Recommendations

### 4.1 Habitats

#### 4.1.1 Summary and Recommendations

Kingdom Ecology have carried out an Ecological Walkover Survey of a small area of amenity land located at Pilsworth Road, Heywood.

Habitats at the site comprise of areas of species-poor, modified grassland with scattered trees including a semi-mature oak tree and 11 x recently planted young trees.

The habitats at the site are not considered to be of any significant botanical importance, however the semi-mature tree present offers suitable refuge and foraging habitat to various local wildlife including birds, foraging bats, urban mammals and common invertebrates.

Development proposals are to construct a new apartment block with associated landscaping. The development will require the removal of some of the semi-mature oak tree and will require the translocation of seven of the recently planted young trees. Given the young ages of these trees and providing appropriate methodologies are followed and after-care is provided, the translocation of the trees has a high chance of success.

It is recommended that replacement planting is provided at the site to compensate for the loss of the semi-mature oak tree.

Recommendations to enhance the biodiversity value of the proposed development are provided in section 4.3. This includes the installation of bat and bird boxes.

Section 4.4 of the report considers the baseline ecological value of the site and measures this against the ecological value of the proposed development in order to determine whether the proposals will result in a net gain in terms of their biodiversity value.

### 4.2 Protected Species

#### 4.2.1 Birds

The semi-mature oak tree located at the site could support nesting birds during the breeding bird season.

All wild birds in England and Wales are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs.

It is therefore recommended that future development of the site including any tree clearance or management avoid taking place during the breeding bird season (March-September inclusive).

Where this is not possible, a check for breeding birds should be carried out immediately prior to the start of works by an appropriately qualified ecologist.

If during works any nesting birds are found, works should immediately stop and further advice should be sought from an appropriately qualified ecologist.

#### **4.2.2 Other Protected Species**

The site is considered unlikely to support any other protected species.

### **4.3 Ecological Enhancements**

It is recommended that opportunities to enhance the ecological value of the development area are taken.

#### **4.3.1 Bat and Bird Boxes**

The proposed development should include provision for roosting bats and breeding birds. This can be achieved through the installation of bat boxes and bird boxes at the site.

It is recommended that 2 x bat boxes (model Habibat 003 or similar) are built into the external walls of the proposed apartment building.

In addition, it is recommended that 2 x swift nest boxes (model Habibat Swift Nest Box or Similar) are also installed into the external walls of the proposed building.

These should be located at a minimum height of 5 m and located on the building's West face to limit any light spill onto the swift/bat box entrances.

#### **4.3.2 Plants for Pollinators and Birds**

The development proposals should also aim to maximise the biodiversity of landscaping proposals at the site. 2 x new trees are proposed as part of the developments.

It is recommended that new planting includes species which can provide nectar sources for insects and berries/fruits for invertebrates and birds.

The following small/medium sized tree species are recommended as they offer suitable foraging opportunities to various native wildlife (including birds and invertebrates): rowan, wild cherry, crab apple, hazel, silver birch, holly, and willow.

## 4.4 Biodiversity Net Gain

### 4.4.1 Proposals and Biodiversity Recommendations Overview

The proposed development works are shown on Figure 2. The development will comprise of the construction of a new apartment block with associated landscaping.

The proposed works will result in the partial loss of the existing areas of modified grassland (poor condition) and will require the removal of a semi-mature oak tree (medium-sized tree in a moderate condition).

The works will also require 7 x recently planted young trees to be translocated (DBH approximately <7 cm). It is recommended that these young trees are carefully excavated, retaining as much of the root ball as possible and replanted to other areas of retained grassland at the site. Therefore, all of these trees would be retained on site.

Additional tree planting will be required to mitigate for the loss of the semi-mature oak tree. New tree planting will include an additional 2 x native tree species.

### 4.4.2 Biodiversity Metric Calculation Results

Based upon the assessments of the existing on-site habitats and the development proposals (including the provision of 2 new native trees), the relative biodiversity units at the site before and after the development's completion have been calculated following methodologies and using tools provided within the Natural England Biodiversity Metric Calculator Version 4.0.

A summary table of these calculations is provided in the Appendix. The full Biodiversity Metric Calculation Tool Spreadsheet for the site has also been submitted. Relevant condition sheets for habitats are provided in the Appendix.

The baseline biodiversity units (i.e. the site's pre-development condition) has been calculated at 0.47 Habitat Units.

The on-site biodiversity units after the completion of development has been calculated at 0.08 Habitat Units.

**The development will result in a biodiversity net loss of 0.38 Habitat Units representing an 82.14% biodiversity net gain.**

Therefore, it will be necessary to provide off-site biodiversity habitat to mitigate for this loss. In order to achieve a 10% biodiversity net gain, an additional 0.44 biodiversity units would need to be provided off-site.

Other biodiversity features have been recommended and which are not accounted for within the metric calculation. These measures include the installation of bat and bird boxes within the proposed building.

## 5 Appendix

***Pilsworth Road, Heywood***  
***Ecology and BNG Assessment***

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*Photograph 1 - Modified grassland with scattered trees- affected oak tree shown on right hand side (Target Note 1)*



*Photograph 2 - Northeast corner of the site, affected oak tree shown on the left hand side*



*Photograph 3 - Southern corner of the site with hardstanding steps*  
*Target Note 3*



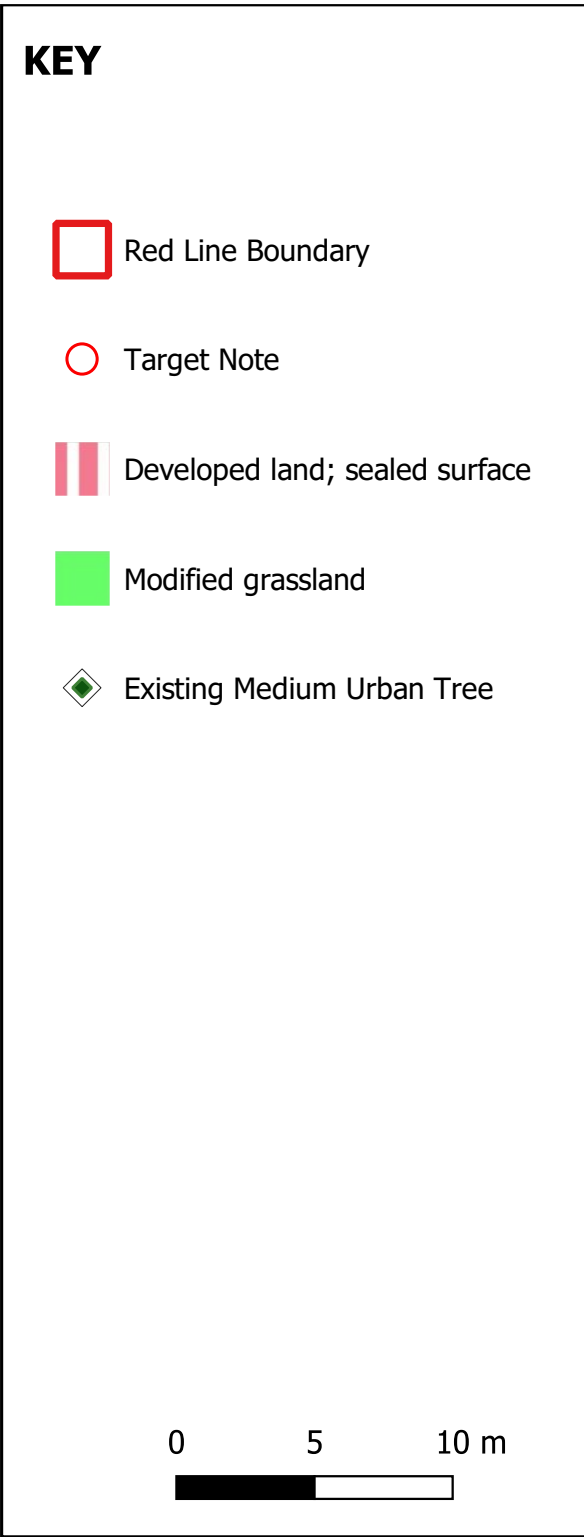
**Pilsworth Road, Heywood**  
**Ecology and BNG Assessment**

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**Table 1- Biodiversity Net Gain Summary**

|                                                                                     |                          |       |         |
|-------------------------------------------------------------------------------------|--------------------------|-------|---------|
| On-site baseline                                                                    | <i>Habitat units</i>     | 0.47  |         |
|                                                                                     | <i>Hedgerow units</i>    | 0.00  |         |
|                                                                                     | <i>Watercourse units</i> | 0.00  |         |
| On-site post-intervention<br>(Including habitat retention, creation & enhancement)  | <i>Habitat units</i>     | 0.08  |         |
|                                                                                     | <i>Hedgerow units</i>    | 0.00  |         |
|                                                                                     | <i>Watercourse units</i> | 0.00  |         |
| On-site net change<br>(units & percentage)                                          | <i>Habitat units</i>     | -0.38 | -82.14% |
|                                                                                     | <i>Hedgerow units</i>    | 0.00  | 0.00%   |
|                                                                                     | <i>Watercourse units</i> | 0.00  | 0.00%   |
|                                                                                     |                          |       |         |
| Off-site baseline                                                                   | <i>Habitat units</i>     | 0.00  |         |
|                                                                                     | <i>Hedgerow units</i>    | 0.00  |         |
|                                                                                     | <i>Watercourse units</i> | 0.00  |         |
| Off-site post-intervention<br>(Including habitat retention, creation & enhancement) | <i>Habitat units</i>     | 0.00  |         |
|                                                                                     | <i>Hedgerow units</i>    | 0.00  |         |
|                                                                                     | <i>Watercourse units</i> | 0.00  |         |
| Off-site net change<br>(units & percentage)                                         | <i>Habitat units</i>     | 0.00  | 0.00%   |
|                                                                                     | <i>Hedgerow units</i>    | 0.00  | 0.00%   |
|                                                                                     | <i>Watercourse units</i> | 0.00  | 0.00%   |

**FIGURE 1 -  
Baseline Habitats**



**FIGURE 2 -  
Proposed Habitats**



**KEY**

-  Red Line Boundary
-  Proposed Small Urban Tree
-  Proposed Lost Urban Tree
-  Developed land; sealed surface
-  Modified grassland

0 5 10 m

