

Whalley's Farm, Preston Road, Charnock Richard PR7 5HR

## ECOLOGICAL SURVEY AND ASSESSMENT

November 2023

ERAP (Consultant Ecologists) Ltd Reference: 2023-180

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## CONTENTS

<b>Summary</b> .....	<b>3</b>
<b>1.0 Introduction</b> .....	<b>4</b>
1.1 Background and Rationale .....	4
1.2 Scope of Works .....	4
<b>2.0 Method of Survey</b> .....	<b>4</b>
2.1 Desktop Study and Data Search .....	4
2.2 Vegetation and Habitats.....	5
2.3 Daylight Licensed Bat Survey and Assessment .....	5
2.4 Animal Life .....	7
2.5 Survey and Reporting Limitations .....	9
2.6 Evaluation Methods.....	10
<b>3.0 Survey Results</b> .....	<b>10</b>
3.1 Desktop Study and Data Search .....	10
3.2 Vegetation and Habitats.....	13
3.3 Daylight Licensed Bat Survey and Assessment .....	15
3.4 Other Relevant Protected Species and Animal Life .....	16
<b>4.0 Evaluation and Assessment</b> .....	<b>17</b>
4.1 Introduction and Description of Proposals.....	17
4.2 Designated Sites for Nature Conservation .....	17
4.3 Vegetation and Habitats.....	17
4.4 Protected Species and Other Wildlife.....	18
<b>5.0 Recommendations and Ecological Enhancement</b> .....	<b>18</b>
5.1 Introduction.....	18
5.2 Site Design .....	18
5.3 Protection of Features During Construction .....	21
<b>6.0 Conclusion</b> .....	<b>21</b>
<b>7.0 References</b> .....	<b>22</b>
<b>8.0 Appendix: Tables and Figures</b> .....	<b>24</b>
8.1 Photographs .....	24
8.2 Plant Species Lists.....	28
8.3 Figures.....	31


### List of Tables

Table 2.1: Consideration of Suitability of Foraging and Commuting Habitat for Bats .....	6
Table 2.2: Survey Equipment Used / Available for Use During Daylight Bat Survey .....	7
Table 2.3: Ponds within 500 metres of the Site .....	8
Table 2.4: Rapid Risk Assessment Result .....	9
Table 2.5: Important Habitat Characteristics for Reptiles .....	9
Table 3.1: Summary of Biological Heritage Sites within 2 kilometres of the Site.....	11
Table 3.2: LERN Records of Bat Species Within a 2 kilometres Radius from the Centre of the Site .....	12
Table 3.3: SLBG Records of Bat Species Within a 2 kilometres Radius from the Centre of the Site .....	13
Table 3.4: Bird Species Detected on 29 <sup>th</sup> September 2023 .....	16
Table 5.1: Suitable Native Species for Tree and Shrub Planting .....	20
Table 5.2: Recommended plants for use in gardens to attract bats .....	21
Table 8.1: Photographs.....	24
Table 8.2: Plant Species List for the Sparse Ruderal Vegetation at the Compacted Ground Yard .....	28
Table 8.3: Plant Species List for the Poor Semi-improved Neutral Grassland on the Sloping Ground .....	29
Table 8.4: Plant Species List for the Amenity / Modified Grassland .....	29
Table 8.5: Plant Species List for the Sloping Land at the Eastern Site Boundary .....	30

### List of Figures

Figure 1: Aerial Image of the Site and its Surroundings and Pond Locations.....	31
Figure 2: Phase 1 Habitat and Vegetation Map of the Site .....	32
Figure 3: Proposed Site Plan with Suggested Locations of Bird Boxes and Bat Access Panels.....	33

## Document Control

Survey Type:	Surveyors <sup>1</sup>	Survey Date(s)
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## SUMMARY

### Introduction and Scope

- i. ERAP (Consultant Ecologists) Ltd was commissioned to carry out an ecological survey and assessment of the yard and surrounds at Whalley's Farm, Preston Road, Charnock Richard PR7 5HR. The assessment was requested to inform a planning application proposing the demolition of a workshop building and the redevelopment of the site to housing.
- ii. This report presents the results of a desktop study and data search, an extended Phase 1 Habitat Survey, a daylight licensed bat survey and assessment and the survey and assessment for relevant protected species carried out on 29<sup>th</sup> September 2023. The survey was carried out by a licensed, qualified and experienced ecologist and is in accordance with recognised survey guidelines.
- iii. This report has also been used to inform a separate *Preliminary Assessment of Biodiversity Net Gain* to demonstrate compliance with the National Planning Policy Framework (NPPF) and good practice.

### Results of Survey and Assessment

- iv. The approximately 0.49 hectare (ha) site lies on the south side of Preston Road on the outskirts of Charnock Richard. The site comprises a hard-standing and compacted gravel yard used for the storage of construction vehicles. A workshop (Building 1) and a timber shed and three metal containers are present. At the western end of the site is a bungalow bordered by mown amenity grassland with scattered trees. The bungalow will not be directly affected by the proposals and was therefore excluded from the survey. At the north-eastern site boundary is sloping ground colonised by semi-improved neutral grassland with a row of planted trees.
- v. In consideration of the distance between the site and any statutory designated sites for nature conservation and the absence of any habitat and hydrological connectivity, it is advised that the demolition and redevelopment works will have no direct or indirect effect on any designated sites for nature conservation.
- vi. No Priority Habitat, semi-natural or irreplaceable habitats will be affected by the proposals. No invasive plant species as listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected at the site. In accordance with the application of the mitigation hierarchy, the trees and shrubs will be retained (and protected during construction). As described in **Section 5.3** and illustrated on **Figure 3** supplementary planting of native trees and shrubs is recommended to enhance habitat connectivity and to provide additional opportunities for nesting birds and foraging bats.
- vii. No evidence of the current use of Building 1, the timber shed, the metal containers or trees at the site by roosting bats was detected during the daylight survey. All buildings, structure and trees are assessed to be of 'negligible' suitability for use by roosting bats and no further survey is required to comply with the survey guidelines and to inform a planning application.
- viii. Inappropriate use of artificial lighting around the exterior of the redeveloped site may have an adverse effect on use of the local area by foraging bats and other wildlife. Guidance to avoid a significant impact on foraging bats is provided at **Section 5.2** and recommendations to enhance the opportunities for roosting bats are outlined at **Section 5.2** and annotated on **Figure 3**.
- ix. Mandatory measures to be applied to ensure the protection of nesting birds during and prior to the site preparation works are described at **Section 5.3** and recommendations for the provision of opportunities for conservation targets such as house sparrow (a Priority Species) are outlined at **Section 5.2** and **Figure 3**.
- x. Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines has been applied to discount adverse effects on other relevant protected species. No further surveys for other protected species are necessary to inform a planning application.

### Recommendations and Conclusion

- xi. This ecological survey and assessment has demonstrated that the redevelopment of the yard at Whalley's Farm to residential properties is feasible and acceptable in accordance with ecological considerations and the National Planning Policy Framework. The mitigation hierarchy has been applied and, in the presence of mandatory actions and best practice measures described in **Section 5.0**, significant adverse effects on designated sites for nature conservation, Priority Habitat and protected species are reasonably discounted. Appropriate and proportionate mitigation and enhancement measures maximise the benefits for biodiversity as part of the proposals are outlined in **Section 5.2**.

## 1.0 INTRODUCTION

### 1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Barton Civil Engineering to carry out an ecological assessment of Whalleys Farm, Preston Road, Charnock Richard (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 55295 14353. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).
- 1.1.2 The assessment was requested to inform a planning application proposing the demolition of the building and the redevelopment of the site to housing.

### 1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken in September 2023 comprised:
- A desktop study and data search for known ecological information at the site and the local area;
  - An Extended Phase 1 Habitat Survey and assessment;
  - Assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria, as presented in *A Nature Conservation Review* (Ratcliffe, 1977);
  - Survey and assessment of all habitats for relevant statutorily protected species<sup>1</sup> and other wildlife including badger (*Meles meles*), barn owl (*Tyto alba*), great crested newt (*Triturus cristatus*), bird species, and reptiles;
  - A licensed daylight bat survey and assessment of the buildings and trees;
  - The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance;
  - The identification of any further surveys or precautionary actions that may be required to inform the progression of the site through the planning process or prior to the commencement of construction activities; and
  - Collation of appropriate information including habitat condition assessments to inform a separate *Preliminary Assessment Biodiversity Net Gain* in accordance with the *Defra Biodiversity Metric Calculation Tool* (version 4.0).

## 2.0 METHOD OF SURVEY

### 2.1 Desktop Study and Data Search

- 2.1.1 The following sources of information and ecological records were consulted:
- MAGiC Maps: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
  - Lancashire Environment Record Network (LERN), the local records centre (a request was made for bat records only); and
  - Lancashire Biodiversity Action Plan (BAP).

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<sup>1</sup> In accordance with *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact on the Planning System* (Ministry of Housing, Communities & Local Government, 2005) developers should not be required to undertake surveys for protected species unless there is reasonable likelihood of the species being present and affected by the development. In this instance (for example) there are no water courses within or adjacent to the site; there has been no requirement to consider protected species associated with riparian habitats such as water vole (*Arvicola amphibius*) or otter (*Lutra lutra*) as part of this assessment.

## 2.2 Vegetation and Habitats

- 2.2.1 An Extended Phase 1 Habitat Survey of the site was carried out by Victoria Burrows on 29<sup>th</sup> September 2023. The weather was dry with sunny intervals, a light breeze (Beaufort scale 2) and an air temperature of 16°C in the afternoon.
- 2.2.2 A habitat and vegetation map was prepared for the site and the immediate surrounding area (refer to **Figure 2**). The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.
- 2.2.3 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally used to describe the plant species distributions with greater precision.
- 2.2.4 Stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is a reliable framework for nature conservation and land-use planning.
- 2.2.5 Habitats within the site were assessed in accordance with the UK Habitats Classification / UKHab (Butcher, et al., 2020). The UKHab has been designed to function at two scales: fine scale (25m<sup>2</sup> or 5 metres length) and large scale (400m<sup>2</sup> or 20 metres length). It has been considered for the purposes of this survey that the fine scale of 25m<sup>2</sup> or 5 metres length is appropriate.
- 2.2.6 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature follows *New Flora of the British Isles 3<sup>rd</sup> Edition* (Stace, 2010).
- 2.2.7 Searches were carried out for the presence of invasive plant species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

## 2.3 Daylight Licensed Bat Survey and Assessment

### Surveyor and Survey Date

- 2.3.1 The daylight licensed bat survey and assessment was carried out by Victoria Burrows, Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number 2015-10390-CLS-CLS, on 29<sup>th</sup> September 2023. Victoria's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).

### Survey Guidelines

- 2.3.2 The survey was carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3<sup>rd</sup> Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn)* (Collins, J. (ed), 2016).

### Habitat Assessment for Commuting / Foraging Bats

- 2.3.3 Habitats surrounding the building were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn)*, (Collins, J. (ed), 2016). Reference has been made to the categories and descriptions / examples, presented below.

**Table 2.1: Consideration of Suitability of Foraging and Commuting Habitat for Bats**

Suitability	Commuting Habitat	Foraging Habitat
Negligible	Negligible habitat features on site likely to be used by commuting bats.	Negligible habitat features on site likely to be used by foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat.	Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree or patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.	Habitat that is linked to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape and is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. Habitats close to and connected to known roosts.	High-quality habitat that is well-connected to the wider landscape and is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Habitats close to and connected to known roosts.

### Daylight Survey: Buildings and Structures

- 2.3.4 An inspection and assessment of the external walls, roofs and other features of Building 1 and other structures such as timber shed and three metal containers was carried out to find potential bat roosting habitat or accesses into crevices where roosts may be present. Searches for evidence of bat presence in the form of droppings, urine stains, feeding signs, grease marks and other evidence were carried out and an endoscope was used to inspect the accessible features (either from ground level or from ladders), as needed.
- 2.3.5 The internal survey involved an examination of the accessible internal areas of Building 1 and the timber shed to find roosting bats or evidence of previous use of the building and structures by bats such as droppings and prey remains.
- 2.3.6 The suitability of Building 1, the timber shed and the metal containers for use by roosting bats has been assessed in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016), taking into account any presence of gaps suitable for access by bats, features suitable for use by roosting bats within the structure and the suitability of the surrounding habitats for use by foraging and commuting bats.

### Daylight Survey: Trees

- 2.3.7 Trees within the site and on the site boundaries were assessed from ground level for their suitability for use by roosting bats. Each tree was searched for the presence of the following features:
- Woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed platey bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy (Hedera helix) with stem diameters in excess of 50mm and bat, bird or dormouse (Muscardinus avellanarius) boxes.*
- 2.3.8 Terms used to describe any features present follow (where possible) those outlined and described in *Bat Tree Habitat Key, 2<sup>nd</sup> Edition* (Andrews, H (ed), 2013) and *Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-care and Ecology Professionals* (BTHK, 2018).
- 2.3.9 The requirement for further presence / absence surveys at each tree was then considered.

### Equipment

- 2.3.10 A list of equipment used is provided below.

**Table 2.2: Survey Equipment Used / Available for Use During Daylight Bat Survey**

Ladders
LED Lenser P14 torch
Canon Ixus digital camera
8x20 binoculars
Ridgid Micro Inspection Camera Borescope CA-300

## 2.4 Animal Life

### Badger

- 2.4.1 The survey area for badger covered the site (as annotated on **Figure 2**) and extended to accessible land within a radius of 50 metres from the site boundary. The private gardens beyond the garden of the bungalow to the west of the site were not accessed.
- 2.4.2 The survey was conducted in accordance with guidance presented within *Badgers and Development* (Natural England, 2007) and *Badgers: advice for making planning decisions* (Natural England, 2023).
- 2.4.3 The following signs of badger activity were searched for:
- Sett entrances, e.g. entrances that are normally 25 to 35cm in diameter and shaped like a 'D' on its side;
  - Large spoil heaps outside sett entrances;
  - Bedding outside sett entrances;
  - Badger footprints;
  - Badger paths;
  - Latrines;
  - Badger hairs on fences or bushes;
  - Scratching posts; and
  - Signs of digging for food.
- 2.4.4 Habitats within and surrounding the site were assessed in terms of their suitability for use by foraging and sheltering badger in accordance with their known habitat preferences as detailed in current guidance and *Badger* (Roper, 2010).

### Bird Species

- 2.4.5 Bird species observed and heard during the survey were recorded.
- 2.4.6 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.
- 2.4.7 During the internal inspection on 29<sup>th</sup> September 2023 Building 1 and the timber shed were searched for pellets, faecal splashes and feathers which may indicate use by roosting or nesting barn owl. The survey was carried out in accordance with guidance provided in *The Barn Owl Conservation Handbook* (Barn Owl Trust, 2012) and *Barn Owl Tyto alba Survey Methodology and Techniques for use in Ecological Assessment. Developing Best Practice in Survey and Reporting* (Shawyer, 2011).

### Great Crested Newt and Amphibians

#### Desktop Search for Ponds

- 2.4.8 In accordance with *Great crested newts: advice for making planning decisions* (Natural England, 2022) all ponds within an unobstructed 500 metres of a site should be considered for their suitability to support breeding



great crested newts. The search of habitats in the wider area up to a distance of 500 metres from the site boundary revealed the presence of 13 ponds, as detailed below.

**Table 2.3: Ponds within 500 metres of the Site**

Pond Reference	OS Grid Reference	Distance from Site Boundary	Location (refer to Figure 1)
1	SD 55451 14264	125 metres	South-east of the site on the opposite side of Preston Road
2	SD 55002 14367	250 metres	In the centre of a field and on the opposite side of Town Lane to the west of the site
3	SD 54963 14428	294 metres	In the corner of a field and on the opposite side of Town Lane to the west of the site
4	SD 54881 14366	372 metres	In the centre of a field and on the opposite side of Town Lane to the west of the site
5	SD 54924 14496	360 metres	On the opposite side of Town Lane to the west of the site
6	SD 54991 14540	322 metres	On the opposite side of Town Lane to the west of the site
7	SD 54928 14605	414 metres	On the opposite side of Town Lane to the west of the site
8	SD 54908 14602	429 metres	On the opposite side of Town Lane to the west of the site
9	SD 40908 29267	321 metres	To the north of the site on the opposite side of Preston Road
10	SD 55206 14792	388 metres	To the north of the site on the opposite side of Preston Road
11	SD 55262 14788	414 metres	To the north of the site on the opposite side of Preston Road
12	SD 55279 14862	451 metres	To the north of the site on the opposite side of Preston Road
13	SD 55279 14862	463 metres	In a field to the south of the site

***Consideration of Requirement for Further Survey / Consideration of Amphibian Species***

2.4.9 The requirement for further survey at each pond was then assessed using the following criteria:

- a. Presence of dispersal barriers to great crested newt movements between ponds and the site, as detected during the walkover survey;
- b. The suitability of the terrestrial habitats at the site for use by sheltering / feeding / hibernating amphibians; and
- c. Distance of ponds from the site, and the potential influence of the proposed development of the site on any populations of great crested newt (if present at ponds), using the Natural England rapid risk assessment tool.

*Presence of Dispersal Barriers*

2.4.10 Ponds 1, 9, 10, 11 and 12 are located over 120 metres from the site and on the opposite side of Preston Road (a busy A-road). Ponds 2 to 8 are all located over 250 metres from the site and on the opposite side of Town Lane and existing built development.

2.4.11 It is advised that the ponds listed above are on the opposite side of physical dispersal barriers and the direct movement of amphibian species between the ponds and the site is reasonably discounted.

*Terrestrial Habitat Suitability*

2.4.12 As described in **Section 3.2**, the 0.49ha site is used as a yard for the storage of construction vehicles and, as such, over 50% of the area is characterised by unvegetated hard-standing and / or compacted ground which is unsuitable for use by sheltering amphibians. The Phase 1 Habitat Survey identifies that only 0.2033ha (41%) of the site vegetated and characterised by amenity grassland, semi-improved grassland and tall-herb vegetation.

*Consideration of Distance of Ponds from Site and Relative Size of Site*

2.4.13 To inform the requirement for further surveys, the Natural England Rapid Risk Assessment tool from *GCN Method Statement WML-A14-2 (Version April 2020)* (Natural England, 2020) has been completed, as presented below.

2.4.14 The tool has been completed based on the distances of the ponds that are not beyond physical dispersal barriers from the site (i.e. Pond 13), and the size of the habitats within the site that are suitable for use by sheltering amphibian species (i.e. 0.2033ha). The rapid risk assessment tool assumes that great crested newt are present.

**Table 2.4: Rapid Risk Assessment Result**

Component	Likely Effect	Notional Offence Probability Score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.005
Individual great crested newts	No effect	0
	Maximum:	0.005
Rapid risk assessment result:	<b>GREEN: OFFENCE HIGHLY UNLIKELY</b>	

2.4.15 The Natural England Rapid Risk Assessment indicates that even if great crested newt were present at Pond 13, the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed.

### Reptile Species

2.4.16 The site and its surroundings were assessed in terms of their suitability for use by reptile species using the important characteristics for reptiles outlined in the draft document '*Reptile Mitigation Guidelines*' (Natural England, 2011), and the *Reptile Habitat Management Handbook* (Edgar, et al., 2010). These habitat characteristics are outlined below.

**Table 2.5: Important Habitat Characteristics for Reptiles**

1. Location (in relation to species range)	7. Connectivity to nearby good quality habitat
2. Vegetation Structure	8. Prey abundance
3. Insolation	9. Refuge opportunity
4. Aspect	10. Hibernation habitat potential
5. Topography	11. Disturbance regime
6. Surface geology	12. Egg-laying site potential

### Other Wildlife

2.4.17 Evidence of other wildlife (including Priority Species) observed whilst on site (but for which specific surveys were not made) was recorded and has been included in this report where it is considered of relevance to the planning application. Habitats have been assessed for their suitability for Priority Species identified in the data search results where this is considered relevant to the application.

## 2.5 Survey and Reporting Limitations

2.5.1 No survey limitations on the intended and scope of survey outlined in **Section 1.2** were experienced.

2.5.2 All measurements within this report are approximate only, and have been either estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC Maps and Google Earth.

## 2.6 Evaluation Methods

- 2.6.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977). These are size (extent), diversity, naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.
- 2.6.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present has been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018).
- 2.6.3 Government advice on wildlife, as set out in the *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, 2021) and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.
- 2.6.4 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of habitats and / or species listed by the Lancashire BAP Provisional Long List has been taken into account in the evaluation of the site.

## 3.0 SURVEY RESULTS

### 3.1 Desktop Study and Data Search

#### Statutory Designated Sites for Nature Conservation and SSSI Impact Risk Zones

- 3.1.1 The site and adjacent land have no statutory designation for nature conservation.
- 3.1.2 The site lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone for Charnock Richard Pasture SSSI located 1.416 kilometres to the north-east and Wrightington Bar Pasture SSSI located 1.511 kilometres to the south-west of the site. Both statutory sites are designated for their species-rich unimproved grassland, a habitat that is becoming increasingly scarce nationally due to agricultural intensification.
- 3.1.3 The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Ordnance Survey, 2023):

*Infrastructure: Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.*

*Minerals, Oil & Gas: Planning applications for quarries, including: new proposals, Review of Minerals Permissions, extensions, variations to conditions etc. Oil and gas exploration/extraction.*

*Air Pollution: Any industrial/agricultural development that could cause air pollution (including: industrial processes, livestock and poultry units with floorspace greater than 500m<sup>2</sup>, slurry lagoons and digestate stores greater than 200m<sup>2</sup>, manure stores greater than 250tonnes).*

*Combustion: General combustion processes greater than 20MW energy input. Including: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration / combustion.*

*Waste: Landfill. Including: inert landfill, non-hazardous landfill, hazardous landfill.*

*Composting: Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Including: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.*

*Water Supply: Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m<sup>2</sup> or more.*

3.1.4 It is advised that the proposals described at **Section 4.1** do not meet any of these criteria.

### **Non-statutory Designated Sites for Nature Conservation**

3.1.5 The site and adjacent land have no non-statutory designation for nature conservation, called ‘Biological Heritage Sites’ or ‘BHS’ in Lancashire.

3.1.6 The site lies within 2 kilometres of twelve Biological Heritage Sites (BHSs), as summarised in the table below:

**Table 3.1: Summary of Biological Heritage Sites within 2 kilometres of the Site.**

<b>Biological Heritage Site (BHS)</b>	<b>Distance and Direction from the Site (Central OS Grid Reference)</b>	<b>Reasons for Designation</b>
Darlington Sidings and Clancutt Brook	600 metres to the north-east of the site (SD 560 147)	Mosaic of habitats including species-rich grassland, tall-herb vegetation, open water, woodland and scrub.
Syd Valley Brook	750 metres to the west of the site (SD 540 134)	Narrow, shallow valley along the banks of Syd Brook and a tributary. The banks of the valley support a mosaic of habitat types, including species-rich neutral and acid grassland, flushes, tall herb-fen, scrub and woodland.
Clancutt Brook (East)	1300 metres to the north-east of the site (SD 565 153)	Scattered areas of semi-natural woodland. Globeflower a species included in the <i>Provisional Lancashire Red Data List of Vascular Plants</i> is present at the site. Kingfisher breeds on this stretch of the Clancutt Brook.
Chisnall Wood	1370 metres to the south-west of the site (SD 544 127)	Ancient semi-natural woodland, most of which is included in the <i>Lancashire Inventory of Ancient Woodland (Provisional)</i> .
Wet Oaks Wood	1400 metres to the south-west of the site (SD 541 134)	Notified for its ancient semi-natural woodland that supports a species listed in the <i>Provisional Lancashire Red Data of Vascular Plants</i> , namely Wood Club-rush ( <i>Scirpus sylvaticus</i> ).
Fishers Farm Ponds	1400 metres to the north-east of the site (SD 558158)	Cluster of four ponds and associated habitat that support a diverse flora. The ponds support breeding populations of all five widespread British amphibians. Notable invertebrates occupy the habitats at the site.
Yarrow Valley Park	1600 metres to the east of the site (SD 571149)	Diverse habitat mosaic. Species of note are round-leaved wintergreen, yellow bird’s-nest and touch-me-not balsam, all of which are listed in the <i>Provisional Lancashire Red Data List of Vascular Plants</i> . The area is also of value for a range of breeding woodland and wetland birds. The lodges are used by toads and frogs for breeding and by bats for feeding.
Little Wood	1750 metres to the north-west of the site (SD 535 156)	Ancient semi-natural woodland and two small streams. The site is listed in the <i>Lancashire Inventory of Ancient Woodland (Provisional)</i> . The ground flora supports Greater Chickweed ( <i>Stellaria neglecta</i> ), a species listed in the <i>Provisional Lancashire Red Data List of Vascular Plants</i> .
Dob Brow Pastures (South)	1800 metres to the north-east of the site (SD 566 156)	Notified for its fields supporting ancient species-rich semi-natural neutral grassland.
Dob Brow Pastures (North)	1800 metres to the north-east of the site (SD 566 159)	Semi-natural, acidic and neutral grasslands; several steep sided stream gullies supporting semi-natural oak woodland run through the site.

Biological Heritage Site (BHS)	Distance and Direction from the Site (Central OS Grid Reference)	Reasons for Designation
Dob Brow Swamp	1900 metres to the north-east of the site (SD 568 156)	Mosaic of swamp, tall herb and scrub communities situated in the flood plain of the River Yarrow. The swamp supports a rich diversity of plants.
Parker's Wood	2000 metres to the north-east of the site (SD 565 162)	Ancient semi-natural woodland at the site is listed in the <i>Lancashire Inventory of Ancient Woodland (Provisional)</i> . The wood supports a significant assemblage of breeding birds characteristic of woodland habitats.

3.1.7 The presence of the BHS is considered further at **Section 4.2**.

### Priority Habitats Inventory

3.1.8 The Priority Habitats Inventory<sup>2</sup> was checked via MAGic Maps. No Priority Habitats are identified at the site by the inventory.

### Bat Species

3.1.9 LERN hold no record of bat species for the site. Reported records of bat species for a 2 kilometre radius from the centre of the site are summarised below.

**Table 3.2: LERN Records of Bat Species Within a 2 kilometres Radius from the Centre of the Site**

Taxon Group	Species Name and Designations <sup>1</sup> and Notes
<b>Bats</b>	Bats (Order <i>Chiroptera</i> ): EPS, WCAs5 & LBAP. 9 records, dated between 1990 and 2019. The closest record is 405 metres to the south-east, and from 2009.
	Brown long-eared bat ( <i>Plecotus auritus</i> ): EPS, WCAs5, PS & LBAP. 13 records, all from 2019. The closest record is 1650 metres to the north-west.
	Common pipistrelle ( <i>Pipistrellus pipistrellus</i> ): EPS & WCAs5 & LBAP. 89 records, dated between 1992 and 2019. The closest record is 215 metres to the north-east, and from 2006.
	Daubenton's bat ( <i>Myotis daubentonii</i> ): EPS, WCAs5 & LBAP. 2 records, dated 2015 and 2019. The closest record is 1935 metres to the east, and from 2015.
	Unidentified Myotis bat ( <i>Myotis</i> sp.): EPS, WCAs5 & LBAP. 10 records, all from 2019. The closest record is 1650 metres to the north-west.
	Natterer's bat ( <i>Myotis nattereri</i> ): EPS, WCAs5 & LBAP. 1 record from 2015, located 1935 metres to the east.
	Noctule bat ( <i>Nyctalus noctula</i> ): EPS, WCAs5, PS & LBAP. 24 records, dated between 2018 and 2019. The closest record is 1595 metres to the north-west, and from 2019.
	Unidentified Pipistrelle bat ( <i>Pipistrellus</i> sp.): EPS, WCAs5 & LBAP. 22 records, dated between 1986 and 2012. The closest record is to the north-west of the site; an accurate estimation of distance and direction of the record to the site cannot be made due to the locational data being less than a six figure grid reference
	Soprano pipistrelle ( <i>Pipistrellus pygmaeus</i> ): EPS, WCAs5, PS & LBAP. 6 records, dated between 2007 and 2019. The closest record is 1720 metres to the north-west, and from 2019.
<b><sup>1</sup>Key to Designation Codes:</b>	
EPS = European Protected Species under <i>The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019</i> .	
WCAs5 = Species receives full protection under Schedule 5 of the <i>Wildlife and Countryside Act 1981</i> (as amended).	
PS = Priority Species listed under Section 41 of the NERC Act 2006.	
LBAP = Species listed on the Lancashire Biodiversity Action Plan Provisional Long List.	

3.1.10 South Lancashire Bat Group (SLBG) holds one record of common pipistrelle within the site boundary; the record comprises a bat detector recording from a road transect survey in 2008. Other records of bat species for a 2 kilometre radius from the centre of the site are summarised below.

<sup>2</sup> A spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

**Table 3.3: SLBG Records of Bat Species Within a 2 kilometres Radius from the Centre of the Site**

Taxon Group	Species Name and Designations <sup>1</sup> and Notes
Bats	Common pipistrelle ( <i>Pipistrellus pipistrellus</i> ): EPS & WCAs5 & LBAP. 87 records, dated between 1998 and 2019. The closest record is within the site, and from 2008.
	Daubenton's bat ( <i>Myotis daubentonii</i> ): EPS, WCAs5 & LBAP. 4 records, dated 2005 and 2011. The closest record is 1933 metres to the north-east, and from 2013.
	Unidentified Myotis bat ( <i>Myotis</i> sp.): EPS, WCAs5 & LBAP. 2 records, dated 2007 and 2010. The closest record is 1943 metres to the north-east from 2010.
	Noctule bat ( <i>Nyctalus noctula</i> ): EPS, WCAs5, PS & LBAP. 5 records, dated between 2004 and 2010. The closest record is 18 metres to the west, and from 2008.
	Soprano pipistrelle ( <i>Pipistrellus pygmaeus</i> ): EPS, WCAs5, PS & LBAP. 3 records, dated between 2008 and 2011. The closest record is 279 metres to the north-west, and from 2008.
	Whiskered bat ( <i>Myotis mystacinus</i> ): EPS, WCAs5 & LBAP. 1 record, dated 2011. The closest record is 1976 metres to the north-east.
<b><sup>1</sup>Key to Designation Codes:</b>	
EPS = European Protected Species under <i>The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019</i> .	
WCAs5 = Species receives full protection under Schedule 5 of the <i>Wildlife and Countryside Act 1981</i> (as amended).	
PS = Priority Species listed under Section 41 of the NERC Act 2006.	
LBAP = Species listed on the Lancashire Biodiversity Action Plan Provisional Long List.	

## 3.2 Vegetation and Habitats

### General Description

- 3.2.1 The 0.49 hectare site is located on the south side of Preston Road near Charnock Richard and comprises a hard-standing and compacted gravel yard used for the storage of construction vehicles. A workshop (Building 1) and an associated timber shed and three metal containers are present. At the western end of the site is a bungalow bordered by mown amenity grassland with scattered trees. The bungalow will not be directly affected by the proposals and was therefore excluded from the survey. At the north-eastern site boundary is sloping ground colonised by poor semi-improved grassland with a row of planted trees.
- 3.2.2 The north-eastern site boundary meets the pavement at Preston Road. The north-western and southern site boundaries are defined by a timber post and wire fence. At the eastern site boundary is a sloping bank with scattered trees and shrubs.
- 3.2.3 A Phase 1 Habitat Survey map is appended at **Figure 2**. Photographs are appended at **Table 8.1**.

### Buildings

- 3.2.4 The buildings (with the exception of the bungalow) and other structures such as the timber sheds and metal containers are described in terms of their suitability for use by roosting bats in **Section 3.3**.
- 3.2.5 The buildings and structure are described by the UKHab as u15b buildings.

### Sparse Ruderal Vegetation at the Compacted Ground Yard

- 3.2.6 Refer to **Photos 2 to 4**. The less frequently disturbed ground around the margins of the hard-standing and compacted gravel yard is colonised by ruderal herb species characterised by occasional Annual Meadow-grass (*Poa annua*), Canadian Fleabane (*Erigeron canadensis*), Creeping Buttercup (*Ranunculus repens*), Greater Plantain (*Plantago major*), Broad-leaved Dock (*Rumex obtusifolius*) and Smooth Smooth-thistle (*Sonchus oleraceus*) with locally frequent Red Fescue (*Festuca rubra*) and Cock's-foot (*Dactylis glomerata*) and rare Self-heal (*Prunella vulgaris*), Groundsel (*Senecio vulgare*), Common Mugwort (*Artemisia vulgaris*) and Common Mouse-ear (*Cerastium fontanum*). A plant species list is appended at **Table 8.2**.
- 3.2.7 The colonising vegetation is not characteristic of an NVC community and is described by the UKHab as u1b developed land; sealed surface with the secondary code 17 ruderal / ephemeral.

### Tall-herb Vegetation and Scattered Trees and Shrubs

- 3.2.8 Refer to **Photos 5 to 6**. At the southern margin of the yard is an area of less frequently disturbed ground with debris that has been colonised by a greater cover of Creeping Thistle (*Cirsium arvense*), Cock's-foot and Common Nettle (*Urtica dioica*) to form a small area of the OV25 *Urtica dioica* – *Cirsium arvense* tall-herb community of the NVC (Rodwell, 2000).
- 3.2.9 Scattered trees characterised by young Ash (*Fraxinus excelsior*), Silver Birch (*Betula pendula*), Rowan (*Sorbus aucuparia*) and Alder (*Alnus glutinosa*) are present at the fence line.
- 3.2.10 This vegetation is described by the UKHab as g3c other neutral grassland with the secondary codes 11 scattered trees and 77 neglected (unmanaged for 3 to 10 years).

### Poor Semi-improved Neutral Grassland with a Line of Trees

- 3.2.11 Refer to **Photos 7 to 8**. At the northern margin of the site the land slopes steeply downhill from the yard to meet the pavement at Preston Road. The poor semi-improved grassland on the slope is characterised by a high cover of mosses with constant and abundant Red Fescue with frequent Yarrow (*Achillea millefolium*) and very locally abundant Greater Willowherb (*Epilobium hirsutum*), Yorkshire-fog (*Holcus lanatus*), Perennial Rye-grass (*Lolium perenne*), White Clover (*Trifolium repens*) and occasional Dandelion (*Taraxacum officinale* agg.).
- 3.2.12 The grassland has affinities with the MG1a *Arrhenatherum elatius*, *Festuca rubra* sub-community of the NVC, although, based on the species composition the grassland is described by the UKHab as g4 modified grassland with the secondary codes 66 mown.
- 3.2.13 Planted along the slope is a line of seven trees characterised by semi-mature Silver Birch, Rowan, Whitebeam (*Sonchus* sp.) and Oak (*Quercus* sp.). A number of the trees appear to be in poor condition. The line of trees has no affinities with an NVC community and is described by the UKHab as w1g6 line of trees.
- 3.2.14 A plant species list for the grassed verge with trees is appended at **Table 8.3**.

### Modified Grassland / Lawn

- 3.2.15 Refer to **Photos 9 to 11**. At the western portion of the site and bordering the bungalow is an area of mown amenity / modified grassland characterised by constant and abundant Perennial Rye-grass, Dandelion and Creeping Buttercup with local abundant White Clover and very locally abundant Common Nettle, Creeping Thistle and locally very abundant False Oat-grass (*Arrhenatherum elatius*) at the margins. In the south-eastern area of the grassland is a group of four conifer trees. A plant species list is appended at **Table 8.4**.
- 3.2.16 The modified grassland is characteristic of the MG7 *Lolium perenne* ley community of the NVC (Rodwell, 1992) and is described by the UKHab as g4 modified grassland with the secondary codes 66 frequently mown and 11 scattered trees.

### Hawthorn Hedgerow with Cherry Trees

- 3.2.17 Refer to **Photo 12**. At the north-eastern boundary of the garden / amenity grassland is a short section of managed Hawthorn (*Crataegus monogyna*) hedgerow with two Cherry (*Prunus* sp.) trees and an understorey of frequent Ivy and locally frequent Common Nettle and Garlic Mustard (*Alliaria petiolata*). The hedgerow is 21 metre long (i.e. less than 30 metres long) and is associated with a garden habitat; the hedgerow has not therefore been assessed in accordance with *The Hedgerows Regulations 1997*.
- 3.2.18 The hedgerow has affinities with a species-poor W21 *Crataegus monogyna*-*Hedera helix* community of the NVC (Rodwell, 1991) and is described by the UKHab as h2a hedgerow (Priority Habitat) with the secondary codes 81 flailed hedgerow and 11 scattered trees.

### Vegetation at the Eastern Site Margin

- 3.2.19 Refer to **Photo 13**. At the eastern margin of the site the land slopes downhill to meet the off-site improved grassland to the east. The boundary is characterised by a group of semi-mature Sycamore (*Acer pseudoplatanus*) with scattered Hawthorn and Elder (*Sambucus nigra*) shrubs. The shaded understory is dominated by Ivy (*Hedera helix*) with locally abundant Bramble (*Rubus fruticosus* agg.), locally frequent Common Nettle, Perennial Rye-grass, Common Bent (*Agrostis capillaris*), Red Fescue and occasional Rosebay Willowherb (*Chamerion angustifolium*) and rare Red Campion (*Silene dioica*). A plant species list is appended at **Table 8.5**.
- 3.2.20 The vegetation has affinities with the W21 *Crataegus monogyna-Hedera helix* community of the NVC (Rodwell, 1991) and is described by the UKHab as w1g6 line of trees with the secondary code 77 neglected.

### Ornamental Hedgerow

- 3.2.21 Refer to **Photo 24**. At the boundary between the hard-standing yard and the amenity grassland around the bungalow is a planted hedgerow of a *Grislinea* shrub species (an ornamental species).

### Invasive Plant Species

- 3.2.22 No Japanese Knotweed or other invasive plant species as listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected at the site.

## 3.3 Daylight Licensed Bat Survey and Assessment

### Habitat Assessment for Commuting / Foraging Bats

- 3.3.1 Refer to **Figures 1 and 2**. The vegetation cover at the site is limited to a small area (0.2033ha) of mown grasslands with scattered trees limited in extent and is assessed to be of 'low' suitability for the attraction of foraging and commuting bats.
- 3.3.2 Habitats within the wider area are characterised by agricultural fields of improved and semi-improved grassland with scattered ponds and bordered by hedgerows and tree-lines provide suitable habitat for use by commuting and edge feeding bat species such as *Pipistrellus* species and are assessed to be of 'moderate' suitability for use by foraging and commuting bat species.

### Building 1: Workshop

- 3.3.3 Refer to **Photos 14 to 19**. Building 1 is a single storey steel framed workshop building with brick elevation walls (lower portion) with corrugated metal sheets above. The building has a shallow pitched corrugated sheet covered roof. No bats or droppings were found around the external elevations of the building. The external elevations and roof of the building are well sealed; no gaps or opportunities for roosting bats were found.
- 3.3.4 A gap around the roller door at the eastern elevation could permit bat access into the interior of the building. Inspection of the interior confirmed that the corrugated metal elevation walls are single-ply with no cavity and an absence of insulation. No bats or droppings were found inside the building. No cavities or crevices suitable for use by roosting bats were found inside the building and the presence of skylights creates a light internal area which further limits the suitability of the internal areas of the building for use by roosting bats.
- 3.3.5 Building 1 is assessed to be of 'negligible' suitability for use by roosting bats at all times of year.

### Timber Shed

- 3.3.6 Refer to **Photos 20 to 21**. To the rear (south) of the workshop is a timber shed and fenced run area. The shed is constructed from horizontal tongue and groove with a pitched felt-covered roof. No bats, evidence of previous use by roosting bats or opportunities for use by roosting bats were found. The timber shed is assessed to be of 'negligible' suitability for use by roosting bats. A bird box is present on the western elevation of the shed.



### Metal Containers

- 3.3.7 Refer to **Photos 22 to 23**. Other structures at the site comprise three metal containers. All are well-sealed and provide no opportunities for use by roosting bats. The metal containers are assessed to be of 'negligible' suitability for use by roosting bats.

### Trees

- 3.3.8 None of the trees within the site boundary and on the site margins support features with suitability for use by roosting bats; all are assessed to be of 'negligible' suitability for use by roosting bats.

## 3.4 Other Relevant Protected Species and Animal Life

### Badger

- 3.4.1 The grassland habitats at the site are suitable for use by badger. No signs of badger such as setts, snuffle holes, tracks, hairs or burrows were detected at the site and survey area. The presence of badger is reasonably discounted.

### Bird Species

- 3.4.2 No evidence of use of Building 1 and the timber shed and metal containers (scheduled for demolition / removal) by nesting or roosting barn owl and other nesting birds was detected.
- 3.4.3 Birds detected in the site on 29<sup>th</sup> September 2023 are listed below.

**Table 3.4: Bird Species Detected on 29<sup>th</sup> September 2023**

Scientific Name	Common Name	BOCC Status <sup>1</sup>	Habitat / Notes
<i>Columba palumbus</i>	Wood pigeon	Amber	In one of the conifers
<i>Pica pica</i>	Magpie	Green	Flying over the site
<i>Troglodytes troglodytes</i>	Wren	Amber	Amongst the scrub at the eastern site boundary
<i>Turdus merula</i>	Blackbird	Green	Amongst the scrub at the eastern site boundary

<sup>1</sup>BOCC: Birds of Conservation Concern (Stanbury, et al., 2021).

- 3.4.4 The limited areas of trees and shrubs of the site are suitable for use by nesting passerine birds including all species listed above.

### Reptiles

- 3.4.5 The hard-standing and compacted gravel habitats that occupy the majority of the site provide no opportunities for use by sheltering reptile species. The site is not adjacent or linked to any areas of favourable habitat for reptile species. The presence of reptiles within the site is reasonably discounted.

### Other Wildlife

- 3.4.6 The habitats at the site may be visited by roe deer (*Capreolus capreolus*) that are likely to use the fields and wooded copses in the wider area. Based on the habitats at the site, deer are not likely to be reliant on the site as a source of food or shelter.
- 3.4.7 The current habitats at the site provide limited cover for use by hedgehog (*Erinaceus europaeus*), a Priority Species. The garden habitats to be created at the site may provide additional opportunities for hedgehog and this is taken into consideration in the recommendations at **Section 5.2**.

## 4.0 EVALUATION AND ASSESSMENT

### 4.1 Introduction and Description of Proposals

- 4.1.1 The proposals, as illustrated on the *Proposed Site Plan* (DC and MG Associates, 2023) and **Figure 3**, appended, comprise the following:
- Demolition of Building 1 and the removal of the timber shed and three metal containers;
  - The bungalow will not be directly affected by the proposals, although a new driveway access over the amenity grassland will be created and a new garage will be constructed;
  - Re-development of the site to four residential bungalows with associated garden habitat;
  - In accordance with the application of mitigation hierarchy all trees<sup>3</sup> and boundary vegetation will be retained.
- 4.1.2 **Section 4.2** provides an assessment of any impacts of the proposed development on the designated sites for nature conservation present in the wider area. The ecological value of habitats within the site is evaluated at **Section 4.3**, and protected and notable species are considered at **Section 4.4**.

### 4.2 Designated Sites for Nature Conservation

- 4.2.1 In consideration of the distance between the site and any statutory designated sites for nature conservation and the absence of any habitat and hydrological connectivity it is advised that the demolition and redevelopment works will have no direct or indirect effect on any statutory and non-statutory designated sites for nature conservation.

### 4.3 Vegetation and Habitats

- 4.3.1 Only common and widespread plant species were found. None of the habitats present are representative of semi-natural habitat or are classed as irreplaceable habitat<sup>4</sup>. The NVC communities present are typical of the geographical area and conditions present.
- 4.3.2 As the Hawthorn hedgerow at the northern margin of the amenity grassland bordering the bungalow is composed of over 80% of a native species it is advised that the hedgerow is a Priority Habitat; the hedgerow will be retained by the proposals. No other Priority Habitats are present at the site or lie adjacent to the site boundary / within a zone of potential influence of the proposals.
- 4.3.3 In terms of each habitat's importance in a geographical context<sup>5</sup>, the habitats at the site are of 'site' value only with the treelines assessed to be of greatest value owing to the habitat structural diversity they provide and their habitat connectivity function and value for use by nesting birds and foraging bats.
- 4.3.4 Guidance / recommendations of features to be accommodated at the redeveloped site for the attraction of wildlife to the garden habitats at the post-development stage are provided at **Section 5.2**.

<sup>3</sup> Although based on the poor condition of some of the trees at the northern site boundary removal and replacement may be recommended, refer to **Section 5.2**.

<sup>4</sup> As defined by <https://defralanduse.blog.gov.uk/2023/10/05/irreplaceable-habitats-and-bng-what-you-need-to-know/>

<sup>5</sup> Using the terms presented at Section 4.7 of *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), i.e. International and European, National, Regional, Local Authority-wide area, River Basin District, Estuarine system / Coastal cell or Local. The term 'site' value is additionally used to highlight ecological features considered to be of importance in the context of the wider site habitats, but which are of negligible value in the context of the local area.

## 4.4 Protected Species and Other Wildlife

### Bat Species

- 4.4.1 No evidence of use of the buildings, structures and trees in the site boundary by roosting bats was detected during the daylight survey and assessment carried out in September 2023. All buildings, structures and trees assessed to be of 'negligible' suitability for use by roosting bats and no further survey is required to comply with the survey guidelines and inform a planning application.
- 4.4.2 Subject to the avoidance lighting and / or implementation of an appropriate lighting strategy as recommended at **Section 5.2**, there is minimal risk of an increase in disturbance to roosting / foraging bats associated with human activity at the site.

### Bird Species

- 4.4.3 Habitats at the site provide opportunities for use by nesting birds, including Priority Species (i.e. dunnock (*Prunella modularis*)). Recommendations and actions to be applied to ensure the protection of nesting birds during the site preparation and construction period and to provide compensatory and enhanced habitats for use by nesting birds, including Priority Species, are described at **Sections 5.2** and **5.3**.

### Other Animal Life

- 4.4.4 Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines has been applied to discount adverse effects on other relevant protected species. No further surveys for other protected species are necessary to inform a planning application.

## 5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

### 5.1 Introduction

- 5.1.1 The recommendations described below are appropriate and proportionate to the scale of the redevelopment proposals and aim to ensure that the proposals are implemented in accordance with the mitigation hierarchy, relevant wildlife legislation, Natural England guidance, the principles of the National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2021), local planning policy and best practice.
- 5.1.2 The recommendations aim to ensure compliance with Chapter 15, paragraph 180(d) of the NPPF which states:

*'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'*.

### 5.2 Site Design

#### Appropriate Use of Lighting

- 5.2.1 Paragraph 185(c) in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:
- "limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation"*
- 5.2.2 It is advised that any external lighting to be installed at the site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the retained tree lines and the habitats outside the curtilage of the residential properties and areas of planting / habitat creation, as lighting overspill may deter use by wildlife such as foraging bats.

- 5.2.3 The lighting scheme will be designed with reference to current guidance, namely:
- Guidance Note 08/23: Bats and Artificial Lighting at Night* (Institution of Lighting Professionals & Bat Conservation Trust, 2023); and
  - Bats and lighting: Overview of current evidence and mitigation guidance (Stone, 2014).

**Accommodation of Opportunities for Nesting Birds: House Sparrow**

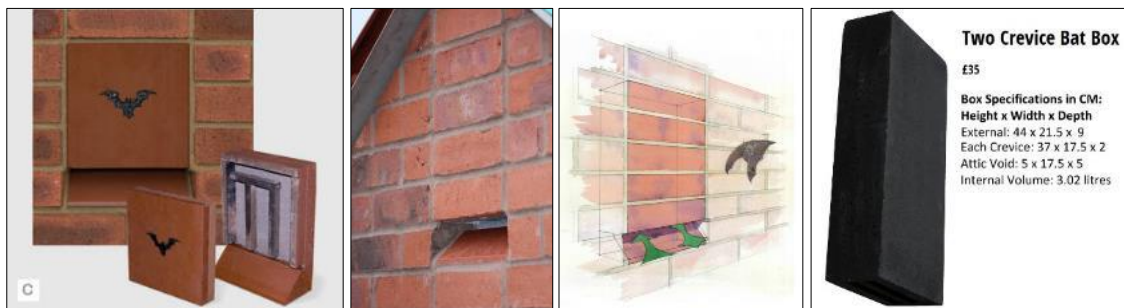
- 5.2.4 To enhance the opportunities for use by nesting birds at the redeveloped site the following is recommended:
- Planting of native trees and shrubs (see below); and
  - Installation of two house sparrow terraces<sup>6</sup> at the new buildings, refer to **Figure 3**. Boxes should not be positioned over windows or doorways where droppings may become a nuisance. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest. Examples of a suitable house sparrow bird box is given below at **Insert 1**:



**Insert 1:** Schwegler 1SP House Sparrow Nesting Terrace (left) and Vivara Pro WoodStone House Sparrow Box (right). Both are available from [www.NHBS.com](http://www.NHBS.com)

**Enhancing Habitats for Roosting Bats**

- 5.2.5 In accordance with best practice, it is recommended that the development incorporates the installation of two bat access panels at the new buildings.
- 5.2.6 The bat access panels should be sited on south facing elevations and at least 4 metres above ground level (i.e. beneath the gable apexes of the bungalows), ideally facing or close to areas of landscape planting or existing linear features. The access panels should not be positioned over windows or doorways where bat droppings may become a nuisance. An ecologist should advise on appropriate positions for the bat access panels. Suitable bat access panels are available from NHBS Ecology ([www.nhbs.com](http://www.nhbs.com)), Wild Care ([www.wildcare.co.uk](http://www.wildcare.co.uk)) and / or Greenwood’s Ecohabitats (<https://www.greenwoodsecohabitats.co.uk>) and are presented below.



<sup>6</sup> House sparrows are associated with suburban areas. Monitoring suggests a severe decline in the UK house sparrow population, estimated as dropping by 71 per cent between 1977 and 2008 with large falls in both rural and urban populations (RSPB, 2023).

**Insert 2: Examples of integrated bat access panels and an externally mounted box<sup>7</sup>**

**Landscape Planting Proposals**

- 5.2.7 To enhance the opportunities at the site for use by nesting birds and to improve habitat connectivity around the site the following is advised:
- Supplementary planting of the site boundaries with native trees and shrubs to connect the retained scattered trees and tree lines;
  - Replacement of the dead, dying or diseased trees with new native trees; and
  - To ensure habitat connectivity is maintained as part of the development proposals, it is recommended that appropriate wildlife gaps (at least 0.15 metre tall and 0.15 metre wide) are installed at suitable intervals around the base of the proposed plot boundary fencing. Example accesses are presented at **Insert 3** below, as reproduced from *Hedgehogs and Development* (British Hedgehog Preservation Society / PTES, 2019).



**Insert 3: Showing wildlife access gap within fencing**

- 5.2.8 It is recommended that the landscape planting within the gardens and areas of open space is composed from native species and species known to be of value for the attraction of wildlife. Suitable trees and shrubs (subject to the distance to the buildings) are detailed at **Table 5.1** below.

**Table 5.1: Suitable Native Species for Tree and Shrub Planting**

Scientific Name	Common Name	Scientific Name	Common Name
<i>Acer campestre</i>	Field Maple	<i>Prunus spinosa</i>	Blackthorn
<i>Corylus avellana</i>	Hazel	<i>Rosa arvensis</i>	Field Rose
<i>Crataegus monogyna</i>	Hawthorn	<i>Rosa canina</i>	Dog-rose
<i>Ilex aquifolium</i>	Holly	<i>Sambucus nigra</i>	Elder
<i>Malus sylvestris</i>	Crab Apple	<i>Sorbus aucuparia</i>	Rowan
<i>Prunus avium</i>	Wild Cherry	<i>Ulmus glabra</i>	Wych Elm
<i>Prunus padus</i>	Bird Cherry	<i>Viburnum opulus</i>	Guelder Rose

- 5.2.9 Use of shrubs and plants that are attractive to invertebrates in any borders and planters is recommended, suitable species comprise Lavender (*Lavandula*), *Hebe*, *Ceanothus*, Foxglove (*Digitalis purpurea*) and *Allium* species.
- 5.2.10 The use of native plant species and species known to be of value for the attraction of wildlife, including foraging bats, in the landscaping scheme is recommended. Appropriate plants comprise night-scented flowers; a list of suggestions is presented below.

<sup>7</sup> Left to right: IBstock Enclosed Bat Box 'c' (left); Habitat Bat Access Panels (centre left and centre right) and Greenwood's Ecohabitat's two crevice bat box (right). Products with a brick face are illustrated, however the Habitat bat access panels can be supplied unfaced to enable the addition of matching material.

**Table 5.2: Recommended plants for use in gardens to attract bats<sup>8</sup>**

Flowers for Borders		Herbs
Aubretia (spring to early summer)	Mexican aster (summer to autumn)	Angelica
Candytuft (summer to autumn)	Michaelmas daisy	Bergamot (summer to early autumn)
Cherry pie (summer to autumn)	Night-scented stock (summer)	Borage (spring to early autumn)
Corncockle	Ox-eye daisy (summer)	Coriander (summer)
Cornflower	Phacelia (summer to autumn)	English marigolds
Corn marigold	Poached egg plant (summer)	Fennel (summer to early autumn)
Corn poppy	Primrose (spring)	Feverfew (summer to autumn)
Echinacea	Red campion (spring)	Hyssop (summer to early autumn)
English Bluebell (spring)	Red valerian	Lavenders
Evening primrose	Scabious (summer)	Lemon balm
Field poppies (summer)	St John's wort (spring)	Marjoram (summer)
Honesty (spring)	Sweet William (summer)	Rosemary (spring)
Ice plant 'Pink lady' (early autumn)	Tobacco plant	Sweet Cicely
Knapweed (summer to autumn)	Verbena (summer to autumn)	Thyme (summer)
Mallow (summer to autumn)	Wallflowers	

### 5.3 Protection of Features During Construction

#### Protection of Trees, Shrubs and Hedgerows

- 5.3.1 During the construction phase, temporary protective demarcation fencing will be used to protect the trees, shrubs and hedgerow to be retained. The fencing must extend outside the canopy of the retained trees and must remain in position until all areas have been developed to ensure protection is provided throughout the construction phase.
- 5.3.2 The fencing will be in accordance with BS5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations* (BSI, 2012).

#### Protection of Nesting Birds

- 5.3.3 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is advised works such as building demolition and vegetation clearance that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive.
- 5.3.4 If breeding birds are detected / present it is recommended that the area is left undisturbed until it is confirmed that the young birds have fledged / the nest is no longer active. Guidance from an ecologist should be sought, as needed.

## 6.0 CONCLUSION

- 6.1 This ecological survey and assessment has demonstrated that the redevelopment of the yard at Whalley's Farm to residential properties is feasible and acceptable in accordance with ecological considerations and the National Planning Policy Framework.
- 6.2 The mitigation hierarchy has been applied and, in the presence of mandatory actions and best practice measures described in **Section 5.0**, significant adverse effects on designated sites for nature conservation, Priority Habitat and protected species are reasonably discounted. Appropriate and proportionate mitigation and enhancement measures maximise the benefits for biodiversity as part of the proposals are outlined in **Section 5.2**.

<sup>8</sup> Extracted from the BCT publication '*Encouraging bats, A guide for bat-friendly gardening and living*' (Bat Conservation Trust, 2016).

- 6.3 The creation of additional opportunities for use by roosting bats are recommended as part of the proposals to contribute to the achievement of net gains for biodiversity and compliance with the *Biodiversity Net Gain: Good Practice Principles for Development* (CIEEM, 2016), relevant planning policy and best practice.

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**8.0 APPENDIX: TABLES AND FIGURES**

**8.1 Photographs**

**Table 8.1: Photographs**



**Photo 1:** Site entrance off Preston Road with brick walls



**Photo 2:** Hard-standing and compacted gravel at yard



**Photo 3:** Hard-standing and compacted gravel at yard with sparse ruderal herbs



**Photo 4:** Hard-standing and compacted gravel at yard with sparse ruderal herbs



**Photo 5:** Scattered trees at southern site boundary with improved grassland beyond



**Photo 6:** Scattered trees and tall-herb vegetation at southern site boundary with improved grassland beyond



**Photo 7:** Poor semi-improved grassland / modified grassland and line of trees on sloping land at northern margin of site



**Photo 8:** Poor semi-improved grassland / modified grassland and line of trees on sloping land at northern margin of site



**Photo 9:** Mown amenity grassland and conifers at western end of site



**Photo 10:** Mown amenity grassland at south-western edge of site



**Photo 11:** Conifers over amenity grassland



**Photo 12:** Short section of Hawthorn hedgerow with Cherry trees at north-eastern site boundary



**Photo 13:** Vegetation at the eastern site boundary



**Photo 14:** Southern and western elevations of Building 1: Workshop



**Photo 15:** Northern and eastern elevations of Building 1: Workshop



**Photo 16:** Western and southern elevations of Building 1 and also the western elevation of the timber shed



**Photo 17:** Sealed mortar at roller doors of Building 1 (with gap at the top of the door)



**Photo 18:** Interior of Building 1



**Photo 19:** Interior of Building 1



**Photo 20:** Timber shed



**Photo 21:** Timber shed and amenity grassland (with off-site improved grassland to the south (right))



**Photo 22:** Metal container



**Photo 23:** Metal container



**Photo 24:** Bungalow (excluded from the surveyed area) and ornamental hedgerow

## 8.2 Plant Species Lists

**Table 8.2: Plant Species List for the Sparse Ruderal Vegetation at the Compacted Ground Yard**

Scientific Name	Common Name	DAFOR <sup>1</sup>	Cover
<i>Acer pseudoplatanus</i>	Sycamore sapling	R	<1%
<i>Agrostis stolonifera</i>	Creeping Bent	VLF	<1%
<i>Aquilegia</i> sp.	Columbine	R	<1%
<i>Arrhenatherum elatius</i>	False Oat-grass	R	<1%
<i>Artemisia vulgaris</i>	Common Mugwort		
<i>Carex pendula</i>	Pendulous Sedge	R	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	R	<1%
<i>Cirsium vulgare</i>	Spear Thistle	R	<1%
<i>Dactylis glomerata</i>	Cock's-foot	LF	1%
<i>Eltrigia repens</i>	Common Couch-grass	R	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	VLF	<1%
<i>Erigeron canadensis</i>	Canadian Fleabane	O	<1%
<i>Festuca rubra</i>	Red Fescue	LF	1%
<i>Geranium molle</i>	Dove's-foot Crane's-bill	R	<1%
<i>Helianthus annuus</i>	Sunflower	R	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	VLF	<1%
<i>Hypochaeris radicata</i>	Common Cat's-ear	R	<1%
<i>Juncus bufonius</i>	Toad-rush	VLF	<1%
<i>Lamium purpureum</i>	Red Dead-nettle	R	<1%
<i>Lapsana communis</i>	Nipplewort	R	<1%
<i>Medicago lupulina</i>	Black Medick	VLA	<1%
<i>Melilotus officinalis</i>	Ribbed Melilot	R	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	O	<1%
<i>Plantago major</i>	Greater Plantain	O	<1%
<i>Poa annua</i>	Annual Meadow-grass	O	<1%
<i>Polypogon viridis</i>	Water Bent	O	<1%
<i>Prunella vulgaris</i>	Self-heal	R	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	O	<1%
<i>Rubus fruticosus</i> agg.	Bramble	VLF	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	VLF	<1%
<i>Sagina procumbens</i>	Procumbent Pearlwort	VLF	<1%
<i>Salix caprea</i>	Goat Willow sapling	R	<1%
<i>Senecio jacobaea</i>	Common Ragwort	O	<1%
<i>Senecio vulgare</i>	Groundsel	R	<1%
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	O	<1%
<i>Symphytum officinale</i>	Common Comfrey	R	<1%
<i>Taraxacum officinale</i> agg.	Dandelion	O	<1%
<i>Trifolium repens</i>	White Clover	VLA	<1%
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	O	<1%
<i>Tussilago farfara</i>	Colt's-foot	VLA	<1%
<i>Urtica dioica</i>	Common Nettle	VLA	<1%
<i>Vicia sativa</i>	Common Vetch	R	<1%
<i>Viola</i> sp.	Pansy	R	<1%

<sup>1</sup>Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and \*denotes a constant species

**Table 8.3: Plant Species List for the Poor Semi-improved Neutral Grassland on the Sloping Ground**

Scientific Name	Common Name	DAFOR <sup>1</sup>	Cover
<b>Woody Species</b>			
<i>Betula pendula</i>	Silver Birch	LF	5%
<i>Quercus</i> sp.	Oak species	R	2%
<i>Salix caprea</i>	Goat Willow (sapling)	O	<1%
<i>Sorbus</i> sp.	Whitebeam species	R	<1%
<i>Sorbus aucuparia</i>	Rowan	LF	5%
<b>Herb and Grass Species</b>			
-	Moss species	A*	20%
<i>Achillea millefolium</i>	Yarrow	F	1%
<i>Agrostis capillaris</i>	Common Bent	F	5%
<i>Arrhenatherum elatius</i>	False Oat-grass	LF	5%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	R	<1%
<i>Cirsium arvense</i>	Creeping Thistle	R	<1%
<i>Dactylis glomerata</i>	Cock's-foot	O	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	VLA	<1%
<i>Erigeron canadensis</i>	Canadian Fleabane	R	<1%
<i>Festuca rubra</i>	Red Fescue	A*	80%
<i>Hieracium umbellatum</i>	Narrow-leaved Hawkweed	O	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	VLA	1%
<i>Leontodon autumnalis</i>	Autumn Hawkbit	R	<1%
<i>Lolium perenne</i>	Perennial Rye-grass	VLA	1%
<i>Medicago lupulina</i>	Black Medick	VLA	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	VLA	<1%
<i>Rumex acetosa</i>	Common Sorrel	R	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R	<1%
<i>Senecio jacobaea</i>	Common Ragwort	VLA	<1%
<i>Taraxacum officinale</i> agg.	Dandelion	O	<1%
<i>Trifolium repens</i>	White Clover	VLA	<1%
<i>Urtica dioica</i>	Common Nettle	VLF	<1%
<sup>1</sup> Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

**Table 8.4: Plant Species List for the Amenity / Modified Grassland**

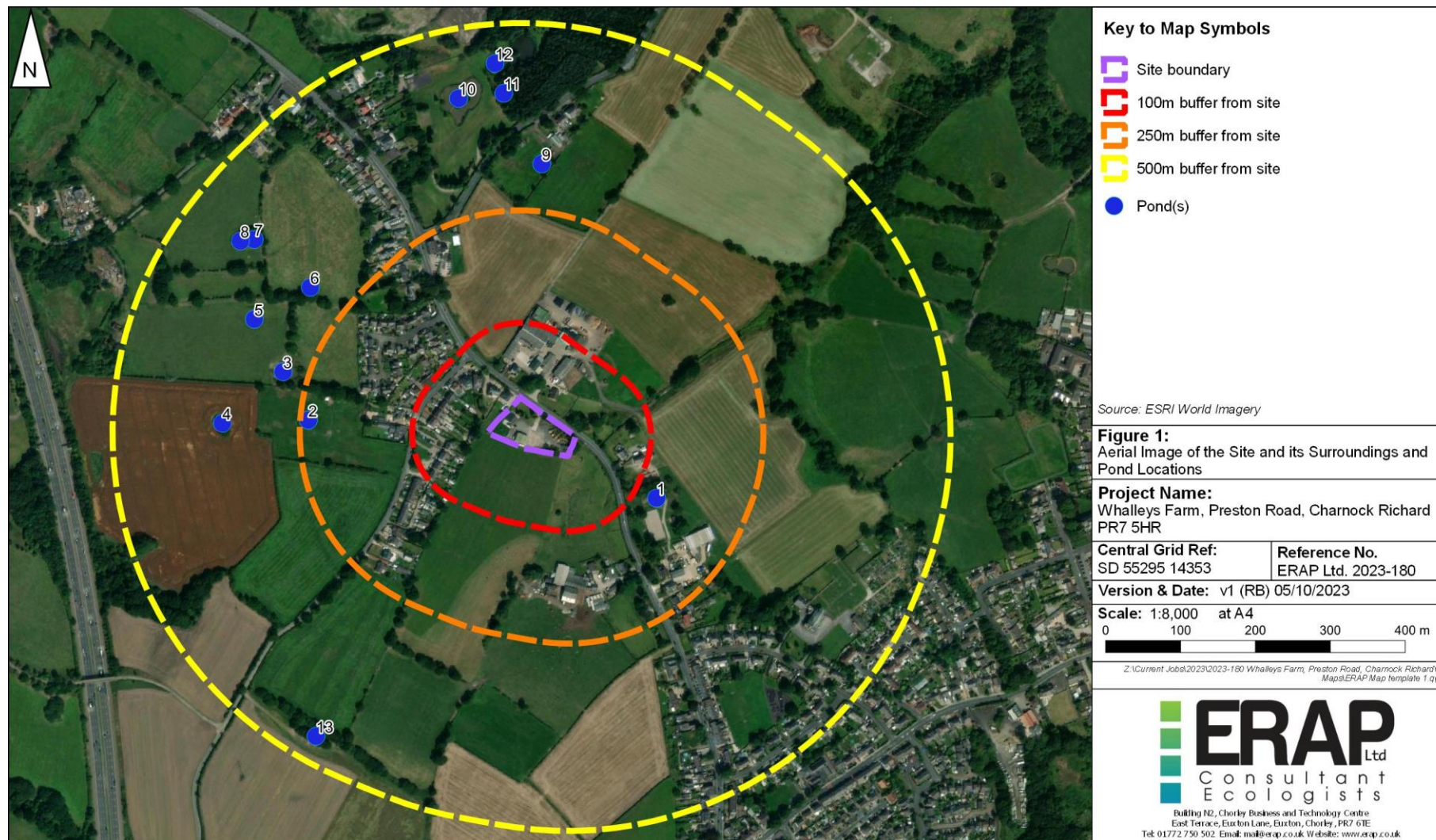
Scientific Name	Common Name	DAFOR <sup>1</sup>	Cover
<i>Arrhenatherum elatius</i>	False Oat-grass	LVA	5%
<i>Cirsium arvense</i>	Creeping Thistle	VLA	1%
<i>Holcus lanatus</i>	Yorkshire-fog	LF	1%
<i>Lolium perenne</i>	Perennial Rye-grass	A*	60%
<i>Ranunculus repens</i>	Creeping Buttercup	A*	20%
<i>Taraxacum officinale</i> agg.	Dandelion	A*	10%
<i>Trifolium repens</i>	White Clover	LA	5%
<i>Urtica dioica</i>	Common Nettle	VLA	1%
<sup>1</sup> Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

**Table 8.5: Plant Species List for the Sloping Land at the Eastern Site Boundary**

Scientific Name	Common Name	DAFOR <sup>1</sup>	Cover
<b>Woody Species</b>			
<i>Acer pseudoplatanus</i>	Sycamore	F	30%
<i>Crataegus monogyna</i>	Hawthorn	F	30%
<i>Sambucus nigra</i>	Elder	F	20%
<i>Sorbus aucuparia</i>	Rowan (sapling)	R	<1%
<b>Herb and Grass Species</b>			
<i>Agrostis capillaris</i>	Common Bent	LF	1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O	<1%
<i>Cirsium arvense</i>	Creeping Thistle	VLA	2%
<i>Dactylis glomerata</i>	Cock's-foot	O	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	VLF	<1%
<i>Festuca rubra</i>	Red Fescue	LF	1%
<i>Hedera helix</i>	Ivy	D*	90%
<i>Lolium perenne</i>	Perennial Rye-grass	LF	1%
<i>Rubus fruticosus</i> agg.	Bramble	LA	5%
<i>Silene dioica</i>	Red Campion	R	<1%
<i>Urtica dioica</i>	Common Nettle	LF	2%
<sup>1</sup> Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

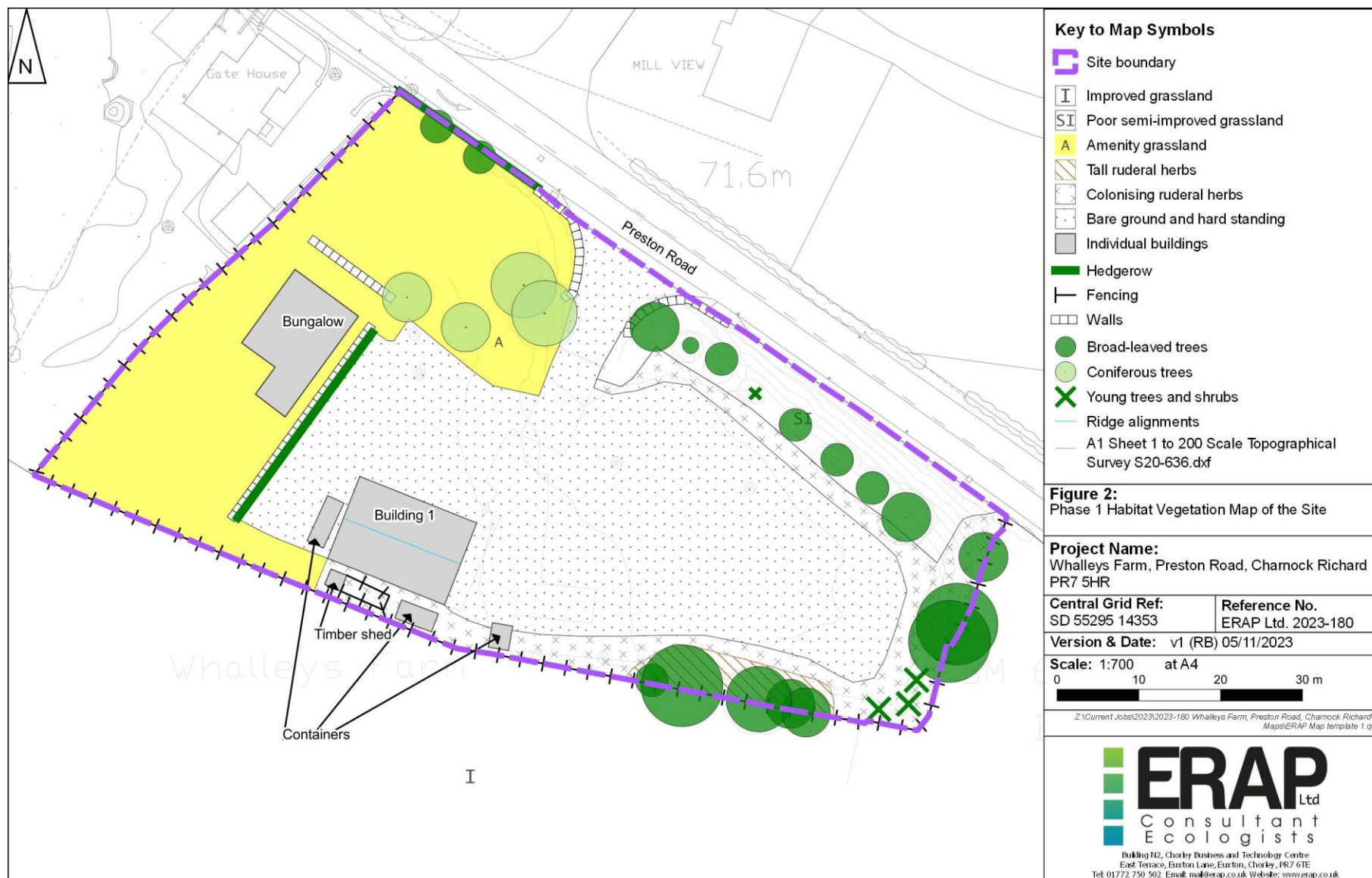
### 8.3 Figures

**Figure 1: Aerial Image of the Site and its Surroundings and Pond Locations**





**Figure 2: Phase 1 Habitat and Vegetation Map of the Site**



**Figure 3: Proposed Site Plan with Suggested Locations of Bird Boxes and Bat Access Panels**

