

Langley Close
Magor
Monmouthshire

A **Preliminary Ecological**
Appraisal By:



Just
MAMMALS
Limited
Ecological Consultancy

On **Behalf Of:**



monmouthshire
sir fynwy

February **2024**

File Reference: **JM18823**

Status	Name	Position	Date
Author	Phoebe Williams BA (Hons) MSc	Ecologist	1 st February 2024
Reviewer	Carola Hoskins BA (Hons) MSc ACIEEM	Principal Ecologist	6 th February 2024
Valid until	12 th January 2026		

Directors: Carola Hoskins BA (Hons) MSc ACIEEM Robert Morgan Phoebe Williams BA (Hons) MSc
Registered Office: Suite 131 -136, Plas y Ffynnon, Cambrian Way, Brecon LD3 7TG
Web Site: www.justmammals.co.uk **Email:** phoebe@justmammals.co.uk **Telephone:** 01874 623616
Registered In: Wales **Registration Number:** 13099914 **VAT No:** 821 6376 35

Contents

	Page No.	
1	Executive Summary	1
2	Introduction	1
3	Survey Team Experience	1 – 2
4	Survey Methodology	2
5	Site Description	2
6	Desktop Study	2 – 3
7	Survey Constraints	3
8	Survey Results	3 – 5
9	Discussion and Conclusions	5
10	Recommendations	5 – 6
10	Bibliography	7
	Appendix I: Site Location Plan	8
	Appendix II: Site Photographs	9
	Appendix III: Phase 1 Habitat Map	10
	Appendix IV: Relevant Legislation	11

List of Tables

Table	Description of Contents	Page No.
Table 1	Summary of Survey Activity and Weather Conditions	3
Table 2	Summary of Phase 1 Habitat Notes	4
Table 3	Recommended Native Tree and Shrub Species	6

List of Figures

Figure	Description of Contents	Page No.
Figure 1	Site location plan	8
Figure 2	Phase 1 habitat survey map	10

List of Plates

Plate	Description of Contents	Page No.
Plate 1	Looking east across the site	9
Plate 2	Looking west across the site	9
Plate 3	Target note 1: mature oak with PRF and cavity	9
Plate 4	Looking north along eastern hedgerow boundary	9
Plate 5	Target note 2: mature oak with PRF	9
Plate 6	Looking south at the eastern end of the site	9
Plate 7	South-west boundary	9
Plate 8	Looking west across the site	9

1 Executive Summary

- 1.1 A suitability assessment of various sites in Monmouthshire is being carried out by Monmouthshire County Council for the possible creation of Gypsy Roma Traveller Sites, to be included within the Replacement Local Development Plan. An area of land to the rear of Langley Close, in Magor, forms part of the suitability assessment. To support the proposals, a Preliminary Ecological Appraisal of the land was conducted in January 2024, by an ecologist and an assistant.
- 1.2 The land subject to survey covers around 2.9ha, and comprises three agricultural fields. Boundary features include treelines, woodland, hedgerows and fencing. The land is currently used to keep livestock, resulting in heavily grazed grassland, and areas of bare ground due poaching. Electric wire fencing is used across the site for stock proofing. The surrounding landscape includes adjacent agricultural fields to the west, and residential housing to the south. The M4 stretches immediately north of the site.
- 1.3 Protected species and their potential presence on site were considered as part of the assessment. If no impacts to the woodland, trees or hedgerow on site are anticipated, then no further survey is required at the site at this time. It is recommended that these features on site are retained and safeguarded as part of the proposals, as this will help in retaining ecological value on site. If impacts to the features cannot be avoided, then further survey will be required, by way of assessment to determine suitability of trees for roosting bats and likely absence/presence of dormice within the northern woodland and connecting hedgerow. If only a small section of hedgerow is proposed to be removed, for access requirements, then it is possible that works could be carried out under a method statement to account for the potential presence of hazel dormouse. Recommendations are provided in this report.
- 1.4 Breeding birds are likely to be present on site, due to the suitability of habitat. Although the majority of onsite hedgerows, woodland and tree lines are to be retained, removal of a section of hedgerow may be required for access. Any removal of vegetation must be timed to occur outside the breeding season for birds.
- 1.5 Enhancements for biodiversity are required to meet the planning policy as indicated by Planning Policy Wales 11, and Future Wales, policy documents. This report makes recommendations to provide enhancements for biodiversity on site, including the installation of bird and bat boxes, as well as re-instatement planting of hedgerows and enhancement planting of woodland.

2 Introduction

- 2.1 Just Mammals Limited was commissioned by Monmouthshire County Council (MCC) to complete a Preliminary Ecological Appraisal of an area of land to the rear of Langley Close, Magor. The site subject to survey comprises three agricultural fields, centred on National Grid Reference ST 42201 87734, standing at an altitude of 21m Above Ordnance Datum.
- 2.2 MCC are currently considering the suitability of various sites in Monmouthshire for the creation of Gypsy Roma Traveller (GRT) Sites, to be included within the Replacement Local Development Plan (RLDP). Due to the early stages of the assessment, no design plans are available at the time of writing this report. To support the plans, Just Mammals Limited were commissioned to carry out a Preliminary Ecological Appraisal of the land at Langley Close, Magor. This assessment was undertaken on the 12th of January 2024.
- 2.3 This report makes recommendations concerning the ecological value of the site, as well as the need for further survey work as appropriate. The different types of habitat were assessed, and the potential presence of protected species, such as badger (*Meles meles*), otter (*Lutra lutra*), dormouse (*Muscardinus avellanarius*), reptiles and amphibians, as well as bats and nesting birds were considered. Section 7 species such as hedgehog (*Erinaceus europaeus*) were also considered.

3 Survey Team Experience

- 3.1 Undertaking the assessment, and author of this report is Phoebe Williams. A Geography graduate from the University of Exeter, and a former trainee at Gwent Wildlife Trust she has completed a Natural Talent trainee programme, studying Hemiptera at the National Museum of Wales. Practical experience includes survey work for dormice, botany, newts, reptiles, and invertebrates. Phoebe has undertaken an MSc in Wildlife and Conservation Management at the University of South Wales.

She is an ecologist with Just Mammals Limited. Phoebe holds a Great crested newt (NRW) S092295/1 (Expiry 26th February 2025), and is an accredited agent on NRW bat licence S091842/2 (expiry 10th November 2024).

- 3.2 Assisting with the survey effort was Catherine Povey. After graduating from Swansea University and UCL Catherine worked in medical research and as a practitioner. Since the first year of her degree when she studied Zoology and Botany, she has retained a keen interest in the natural world and has worked with Bannau Brycheiniog National Park on a number of projects including peat conservation. She is employed by Just Mammals Limited as a Trainee Ecologist and has conducted a variety of surveys with the company, including dusk bat emergence surveys for commercial projects.

4 Survey Methodology

- 4.1 A Preliminary Ecological Appraisal (PEA) was conducted on the 12th of January 2024. Details of the survey and weather conditions are provided in Table 1. Prior to the site visit, a desktop study was undertaken, which involved a standard search area of a 2km radius from the site (using a central grid reference), using the MAGIC website. Details of statutory sites designated for nature conservation were obtained. A record search was also commissioned from South East Wales Biodiversity Records Centre (SEWBRc).
- 4.2 The assessment comprised a survey employing the Phase 1 habitat survey methodology. This is a standardised technique for classifying and mapping British habitats. All areas within the site were inspected and assessed for indicators of ecological value, including the presence and/or field signs of any protected or rare habitats and species. The site was walked over, recording all plant species and features onto a custom-made recording sheet. Habitats and notes were drawn onto a map of the survey site and photographs were taken. A coloured Phase 1 habitat map was produced (Appendix III).
- 4.3 Assessment for the presence or potential absence of other protected species, including hazel dormouse, badger, reptiles and amphibians, was undertaken by considering the features of the site. Such features include grassland and dense vegetation. The potential suitability of the site for nesting birds was also considered.

5 Site Description

- 5.1 Situated at the north-west edge of Magor, approximately 5km south-west of Caldicot, the site subject to survey covers around 2.9ha, and comprises three agricultural fields. Boundary features include treelines, woodland, hedgerow and fencing. Fields are divided up by hedgerows and fencing. The land is currently used by its tenants to house cattle and horses, resulting in heavily grazed grassland, and areas of bare ground, due to high levels of disturbance. The horses are kept within the eastern end of the site, while cattle roam to the west. Electric wire fencing is used across the site for stock proofing.
- 5.2 The surrounding landscape includes adjacent fields to the west, and residential housing to the south. To the east of the site runs St Brides Road, beyond which stretch grassland fields that make up part of Grange Road Site of Importance for Nature Conservation. The M4 motorway stretches immediately north of the site, east to west.

6 Desktop Study

- 6.1 A record search was commissioned from South East Wales Biological Records Centre (SEWBRc) (unique reference 0234-698) to ascertain whether protected species have been recorded at or close to the site. The search revealed no records of priority species at the site.
- 6.2 The data set revealed protected species records within 1km of the site. The record search is summarised below:
- The closest mammal record to the site is of an unidentified bat over 90m from the site, other bat species recorded in the area include noctule (*Nyctalus noctula*) over 450m from the site, and lesser noctule (*Nyctalus leisleri*) 800m away. Stoat (*Mustela erminea*), and hedgehog (*Erinaceus europaeus*), have been recorded around 300m from the site, water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) over 450m from the site, badger (*Meles meles*) over 900m from the site, and dormouse (*Muscardinus avellanarius*) over 1.4km from the site;

- Bird records include swift (*Apus apus*) around 100m from the site, willow warbler (*Phylloscopus trochilus*) 170m from the site, over 300m away swallow (*Hirundo rustica*), long-tailed tit (*Aegithalos caedatus*), whitethroat (*Curruca communis*), snipe (*Gallinago gallinago*), and wheatear (*Oenanthe oenanthe*) have been recorded, short-eared owl (*Asio flammeus*) has been recorded around 400m away, and over 500m from the site bird records include kingfisher (*Alcedo atthis*), red kite (*Milvus milvus*), teal (*Anas crecca*), redstart (*Phoenicurus phoenicurus*), and barn owl (*Tyto alba*);
 - A single reptile record was returned within 1km of the site (around 700m away) of grass snake (*Natrix helvetica*), adder (*Vipera berus*) has been recorded over 1km from the site, amphibian records include common frog (*Rana temporaria*), common toad (*Bufo bufo*) and smooth newt (*Lissotriton vulgaris*) all over 1km from the site;
 - Invertebrate (other marine or freshwater) records include three mollusc records over 600m from the site, and a single crustacean record over 1.2km from the site;
 - Invertebrate (insect) records include several moths such as goat moth (*Cossus cossus*), and Bulrush Veneer (*Calamotropha paludella*) over 500m from the site;
 - Vascular plants include bee orchid (*Ophrys apifera*), sea pealwort (*Sagina maritima*), henbit dead-nettle (*Lamium amplexicaule*), early meadow grass (*Poa infirma*), and yellow-wort (*Blackstonia perfoliata*), bluebell (*Hyacinthoides non-scripta*) recorded between 250 – 500m from the site;
 - Bryophytes include records of common pocket-moss (*Fissidens taxifolius*) and wall screw-moss (*Tortula muralis*) over 800m from the site.
- 6.3 By consulting Magic Map, it was determined that no part of the site contains, or is within, any statutory sites of nature conservation interest, such as a Site of Special Scientific Interest (SSSI), Special Areas of Concern (SAC), National Nature Reserve (NNR) or Local Nature Reserves (LNR) etc. No sites of conservation interest form part of the site. The desktop study confirmed four sites of interest within 2km of the site. These include Penhow Woodlands NNR and SSSI 1.7km to the north of the site, Magor Marsh SSS 1km to the south-east of the site, Gwent Levels – Redwick and Llandevenny SSSI 970m to the south-west of the site, and Gwent Levels – Magor and Undy SSSI 1.9km to the south-east of the site.
- 6.4 The record search also revealed Sites of Importance for Nature Conservation (SINC) within 1km of the area of land subject to survey. These are listed below with significance of the sites also included, where information is available:
- Grange Wood & The Larches: just over 960m from the site;
 - Grange Road: 100m to the east of the site, species rich neutral grassland;
 - Bluehouse Farm: 860m from the site, species rich grassland with a mosaic of damp and dry habitats;
 - Upper Grange Farm Field: 460m from the site, species rich calcareous grassland.
- 6.5 The site subject to survey does not form part of any of the above designated sites. Grange Road SINC is located within close proximity to the site, just east, designated for species rich neutral grassland. Impacts to this SINC as a result of the proposed development site, such as run-off will need to be considered as part of the suitability assessment. Given the scale of the development, the distance of all other sites of conservation interest from the site subject to assessment, and significance of the sites, it is considered unlikely that proposals will impact any of these designated sites within the surrounding area at this time.

7 Survey Constraints

- 7.1 The comprehensiveness of any ecological assessment may be limited by the nature of the site visit, it being a single snapshot of the site at any point in time. This report cannot therefore be considered to provide a fully comprehensive analysis of the ecological interest of the site. However, it does provide an ecological assessment of the site for supporting habitats and species on the day of the visit and highlights areas where further survey work may be required.

8 Survey Results

- 8.1 Details of the conditions under which survey was conducted is given in Table 1. Wind speeds given employ the Beaufort scale.

Table 1: Summary of Survey Activity and Weather Conditions

Survey Type and Location	Dates	Timing	Weather Conditions
--------------------------	-------	--------	--------------------

Day time visual inspection, botanical survey and habitat assessment, including protected species assessment	12/01/2024	10.00 – 12.00 hours Greenwich Mean Time	Air temperature: 5°C Cloud cover: 8/8 oktas Wind speed: F2, light breeze Conditions: Dry
Surveyors	Phoebe Williams and Catherine Povey		

- 8.2 The site was divided into eight different types of habitat for recording purposes. A coloured Phase 1 habitat map was produced (see Appendix III). Table 2 below provides details of the various habitats and the dominant species for each of them.

Table 2: Summary of Phase 1 Habitat Notes

Habitat	Phase 1 Classification	Description of Area and Typical Species
Type 1	B6 Poor semi-improved grassland	Just under half of the site comprises this habitat type. Grassland sward is short, with evidence of disturbance shown by patchy areas. Species present include perennial rye grass (<i>Lolium perenne</i>), annual meadow grass (<i>Poa annua</i>), broad-leaved dock (<i>Rumex obtusifolius</i>), creeping buttercup (<i>Ranunculus repens</i>), Yorkshire fog (<i>Holcus lanatus</i>), ragwort (<i>Jacobaea vulgaris</i>), and common sorrel (<i>Rumex acetosa</i>).
Type 2	J4 Bare ground	This habitat makes up a large portion of the site as a result of high levels of disturbance by cattle, horses, and farm vehicles. Few species grow, including creeping buttercup and meadow buttercup (<i>Ranunculus acris</i>).
Type 3	A3.1 Scattered trees	A small number of trees stand at the bottom of the adjacent residential gardens to the south of the site. These are at the boundary edge. Specimens are mature. Species present include pedunculate oak (<i>Quercus robur</i>) and sycamore (<i>Acer pseudoplatanus</i>).
Type 4	J2.1.2 Intact hedgerow, species poor	This habitat is present at the southern and north-west corner of the site. There are fewer than five woody species along a typical 30m stretch. Species present include beech (<i>Fagus sylvatica</i>), ivy (<i>Hedera helix</i>), hawthorn (<i>Crataegus monogyna</i>), and holly (<i>Ilex aquifolium</i>).
Type 5	J2.2.2 Defunct hedgerow, species poor	Defunct hedgerow aligns field boundaries at the centre of the site. The hedgerow features trees with exposed roots that have been disturbed by cattle. Species include hawthorn and elm (<i>Ulmus sp.</i>).
Type 6	J2.3.2 Hedge with trees, species poor	At the eastern and western ends of the site, trees align the hedgerow. Specimens are mature. Species include hawthorn, ivy, lesser celandine (<i>Ficaria verna</i>), sycamore, walnut (<i>Juglans regia</i>), and bramble (<i>Rubus fruticosus</i>). Target Note 1: Walnut tree with Potential Roost Feature
Type 7	J2.4 Fence	A post and wire fence aligns most of the site boundaries, a timber fence is present at the south-east end of the site.
Type 8	A1.1.1 Broadleaved woodland, semi natural	To the north of the site a band of woodland is present. Species present include lords and ladies (<i>Arum maculatum</i>), pedunculate oak, hazel, holly, elder (<i>Sambucus nigra</i>), dogwood (<i>Cornus sanguinea</i>) and hard fern (<i>Blechnum spicant</i>). Ivy and bramble cover the woodland floor.

- 8.3 Ecological assessment included identification of the potential for protected species to be present on site. Reptiles make use of open, rank habitats which provide a mixture of open areas and cover. Habitat on site comprises short sward, disturbed grassland that is grazed by cattle and horses.
- 8.4 During the terrestrial part of their lifecycle, amphibians have similar habitat requirements to reptiles, with both species' groups favouring unmanaged, rank grassland, scrubby vegetation and variation in vegetative architecture. No amphibians were noted during the survey. No ponds are present, ruling out the possibility for them to breed on site. Since great crested newts are known to use terrestrial habitat up to 500m from their breeding ponds, the wider landscape must also be taken into consideration. Review of aerial maps show no ponds within 500m of the site.
- 8.5 Bats use trees as well as buildings for roosting, where they will exploit gaps, cracks and crevices in the bark. An extensive survey of trees and their suitability for bats was not undertaken, as this is beyond the scope of the preliminary assessment. However, a walnut tree (Target Note 1) was noted as having a Potential Roost Feature. This feature was not inspected during the PEA.

- 8.6 The vegetated site boundaries and woodland on site are likely to attract a variety of invertebrate fauna, suggesting that these features are likely to be used by foraging bats. Treelines and hedgerow are used for commuting purposes, and open areas are used for feeding by certain species.
- 8.7 Hazel dormice are associated with well-defined, connected hedgerows that link to further suitable habitat elsewhere in the landscape. No evidence of dormice was recorded during the survey. A dormouse tube was noted within the woodland to the north of the site, this was not inspected as a licenced individual was not present. No records of dormice were returned from the record search within 1km of the site. Hedgerows on site connect to the northern woodland, and to small woodland patches in the surrounding area.
- 8.8 No evidence of badger was noted during the survey, such as setts, footprints, hairs, latrines or other indicators of their presence. Badgers are highly mobile and can range great distances, favouring sloping ground in wooded areas where they can dig their setts and forage away from disturbance. An area of woodland is present to the north of the site. Holes were noted at the edge of the field and woodland, these were identified as a result of rabbit, due to size and presence of droppings.
- 8.9 Survey was undertaken outside of the bird nesting season, as such, no nesting activity was observed. Habitats on site, namely hedgerows and scattered trees are suitable for nesting birds.
- 8.10 Species such as otter, white-clawed crayfish (*Austropotamobius pallipes*) and water vole (*Arvicola amphibius*) are highly reliant on water bodies. No water bodies are present on, or immediately adjacent to the site. The site is not considered suitable for either of these species.

9 Discussion and Conclusions

- 9.1 An areas of land to the rear of Langley Close is being considered to be developed as a GRT site. Suitability surveys are currently being undertaken, consequently no design plans are available at the time of writing this report. The land subject to survey currently comprises large areas of bare ground that is heavily disturbed by livestock and farm vehicles. Less disturbed areas of the site include semi-improved grassland, which is species poor. Boundary features include species poor hedgerow, some of which features scattered trees. The band of woodland to the north has a range of species, and understory cover of ivy and bramble. Although large areas of bare ground provide little ecological value, the woodland and hedgerow on site provide a moderate level of value to wildlife.
- 9.2 Habitat on site is not considered suitable for reptiles or amphibians, given the lack of shelter provided by the short sward, grazed grassland, and large areas of bare ground due to the presence of cattle, horses and farm vehicles. There are no ponds present on site, or within 500m of the site, and no amphibian records were returned within 1km of the site. A single grass snake record was returned around 700m from the site, however onsite habitat does not provide enough shelter or other opportunities for this species.
- 9.3 Detailed assessment of the trees on site was not undertaken. A single tree was noted during the survey as having features that may be suitable for roosting bats, although depth and suitability of features were not thoroughly inspected. If any trees are earmarked for removal, further assessment is required.
- 9.4 No dormouse records have been returned within 1km of the site. A dormouse survey tube was noted within the woodland to the north, although an inspection of the tube was not made, as the surveyor does not have an appropriate licence. This woodland habitat is suitable for dormouse given the presence of hazel, and woodland floor coverage with ivy and bramble. The woodland is connected to hedgerows on site. It is highly recommended that all woodland, trees and hedgerow on site are retained and protected, some hedgerow may however require removal at the site entrance. If only a short section of hedgerow removal is required, this can be carried out under an ecological method statement which outlines precautionary working methods to ensure no impacts to dormice. If larger areas are to be removed, then further survey for dormouse will be required.
- 9.5 No live badgers were recorded during the survey, although the woodland habitat to the north is suitable for this species. Badger has been recorded over 900m from the site, therefore passage through the site and use of the woodland to the north cannot be discounted. If any works are proposed to the northern woodland, further targeted survey will be required. If no impacts to the

woodland are anticipated then appropriate precautionary measures must be taken during the construction to ensure any mammals that may pass through the site are protected during the works.

- 9.6 Habitat such as trees and hedgerow provides suitable habitat for birds to nest. All nesting birds, their chicks, eggs and nests whilst in use are protected under the Wildlife and Countryside Act 1981 (as amended). Recommendations for best practices regarding nesting birds are made below.

10 Recommendations

- 10.1 If no impacts are proposed to the woodland, trees and hedgerow on site, no further survey is required at the site, at this time. Impacts include lighting and damage to hedgerow, tree and woodland root zones. It is highly recommended that all trees, hedgerow and woodland on site are retained and safeguarded as part of the proposals, as this will help in retaining some ecological value on site. If any trees and/or hedgerows are proposed to be removed, further survey will be required, by way of an assessment to determine suitability for roosting bats, and likely presence/absence of dormouse. If, as mentioned above, only a small section of hedgerow is to be removed, for reasons such as access at the site entrance, then such works can be carried out under an ecological method statement. This will outline a procedure of works to safely remove hedgerow without impacting dormouse.
- 10.2 Recommendations below include enhancing the existing hedgerow/trees on site through planting. If any vegetation is to be cut down, it must be removed outside of the bird nesting season, which runs between March and August, inclusive. If, whilst the vegetation is being removed an active nest is discovered, all works within a 2m radius of the nest must be immediately stopped, and not recommenced until all chicks have fledged.
- 10.3 To protect any mammals that may pass through the site, any trenches dug forming part of the groundworks must be covered overnight, or left with a 45° sloping side to prevent any animal from becoming trapped. Similarly, any unconnected pipes must be capped overnight to prevent any animal from becoming stuck.
- 10.4 Potential presence of nocturnal animals, such as foraging bats on site requires considerate design of a sensitive lighting scheme. Any new lighting columns must not exceed 4m in height, and must be affixed with cowls, hoods or shrouds to minimise upward light spill. Luminosity will be limited to the absolute minimum required by Health and Safety standards, and will ideally be timed to be extinguished for as long a period as possible during the night. All lights must face downwards and must not point directly at any natural features. This is also important for any temporary lighting installed for use during construction. Any external lighting affixed to the exterior of the proposed houses must be motion-activated and pointed in a downward facing direction, away from natural features. Any new lighting installed must adhere to the ILP (2023) guidelines for artificial lighting.
- 10.5 Works provide the opportunity to enhance the biodiversity of the site, and to comply with Planning Policy Wales 11 (PPW11). Areas of the site must be set aside for wildlife. The site would benefit from the creation of a pond or SuDS area (if required), the margins and surrounding areas of which must be left to grow. Woodland planting is recommended to extend the width of the woodland band to the north. Standing and fallen deadwood must be left in situ. Hedgerow and tree planting is recommended around the field margins to enhance existing defunct hedgerow, and improve connectivity across the site and to the wider landscape. Table 3 below includes a list of suitable native tree and hedgerow species, which can be planted as part of the proposals. Species used must be native, with a mix of at least five different species. It is essential that such plants are sourced locally in order to reduce likelihood of importing diseases. It is recommended that a strip of vegetation alongside the hedgerows is left to grow rank (at least 1m wide), this will provide additional shelter and add to the mix of habitats to be created at the site.

Table 3: Recommended Native Tree and Shrub Species

Common Name	Scientific Name
Beech	<i>Fagus sylvatica</i>
Blackthorn	<i>Prunus spinosa</i>
Crab apple	<i>Malus sylvestris</i>
Dogwood	<i>Cornus sanguinea</i>
Downy birch	<i>Betula pubescens</i>
Elder	<i>Sambucus nigra</i>
Field maple	<i>Acer campestre</i>
Common hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Holly	<i>Ilex aquifolium</i>

Pedunculate oak	<i>Quercus robur</i>
Sessile oak	<i>Quercus petraea</i>
Silver birch	<i>Betula pendula</i>
Spindle	<i>Euonymus europaeus</i>

- 10.6 Bird boxes and bat boxes are an effective way of attracting species to the site. At least six woodcrete/woodstone bird boxes are recommended to be installed at the site. Bird boxes are proposed to be of different designs, including; Vivara Pro Serville 32mm Woodstone nest boxes, and Vivara Pro Barcelona Woodstone Open nest boxes (or similar). Bird boxes must be approximately 3m above the ground, with a clear flight path. Boxes must be sheltered from prevailing wind, rain and strong sunlight. Bird boxes must not be positioned too close together, and must be attached to the trees on site.
- 10.7 With regard to enhancement bat boxes, it is recommended to install six bat boxes of different designs, including Schwegler 2F bat boxes (or similar), eco Kent bat boxes (or similar) and Vincent Pro bat box (or similar), on trees within the site. These are to be installed close to natural linear features such as trees adjacent to hedgerows, and away from any artificial light source. Boxes must be at least 4m above the ground and sheltered from strong winds (usually south, south-east or south-west elevations).
- 10.8 It is important to implement good horticultural practice in any landscaping scheme, including the use of peat-free composts, mulches and soil conditioners. The use of pesticides (i.e. herbicides, insecticides, fungicides and slug pellets etc) must be discouraged to prevent cumulative fatal effects to animals via the food chain, particularly invertebrates, birds and/or mammals. Any pesticides used must be non-residual.
- 10.9 Any fencing must have a continuous gap of approximately 20cm beneath it, to ensure wildlife can continue to move across the site.

11 Bibliography

Anon. (2023). 'Bats and Artificial Lighting in the UK: Guidance Note 08/23'. The Institution of Lighting Professionals and Bat Conservation Trust, Rugby

Joint Nature Conservation Committee (1993). '*Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit*'. JNCC, Peterborough

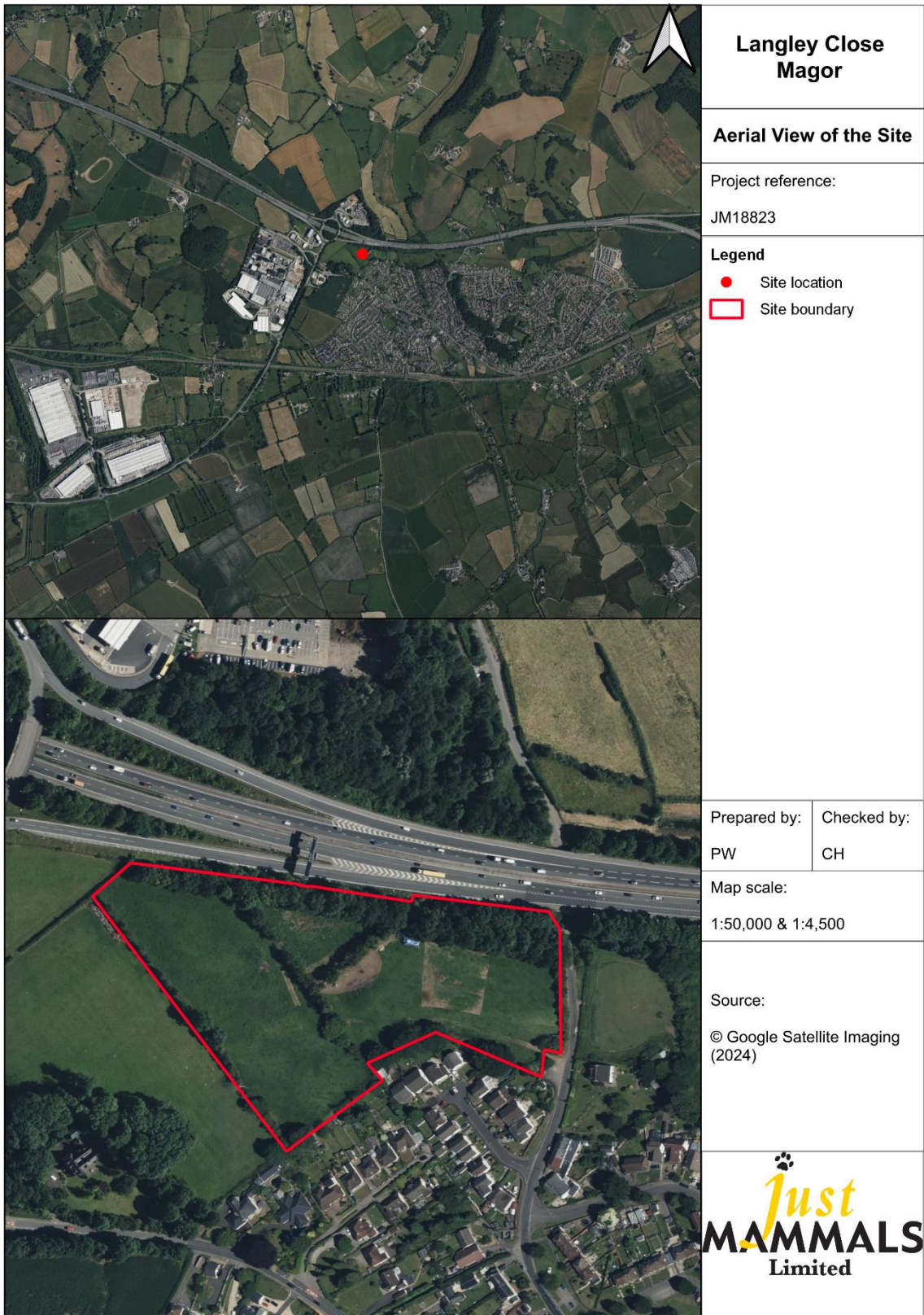
Mitchell-Jones A.J. and McLeish A.P. (2004). '*The Bat Workers Manual, 3rd Edition*', English Nature, Peterborough

Rose, F. (1981). '*The Wild Flower Key*'. Frederick Warne, London

Streeter, D. (2009). '*Collins Flower Guide*'. Harper Collins, London

Appendix I: Site Location Plan

Figure 1: Site location plan



Appendix II: Site Photographs

Plate 1: Looking north, at western end of site



Plate 2: Looking towards the north-west corner of the site



Plate 3: Hedgerow and cattle within the northern end of the site



Plate 4: Looking east across the site



Plate 5: Woodland at the northern end of the site



Plate 6: Looking west across the site



Plate 7: Woodland to the north of the site

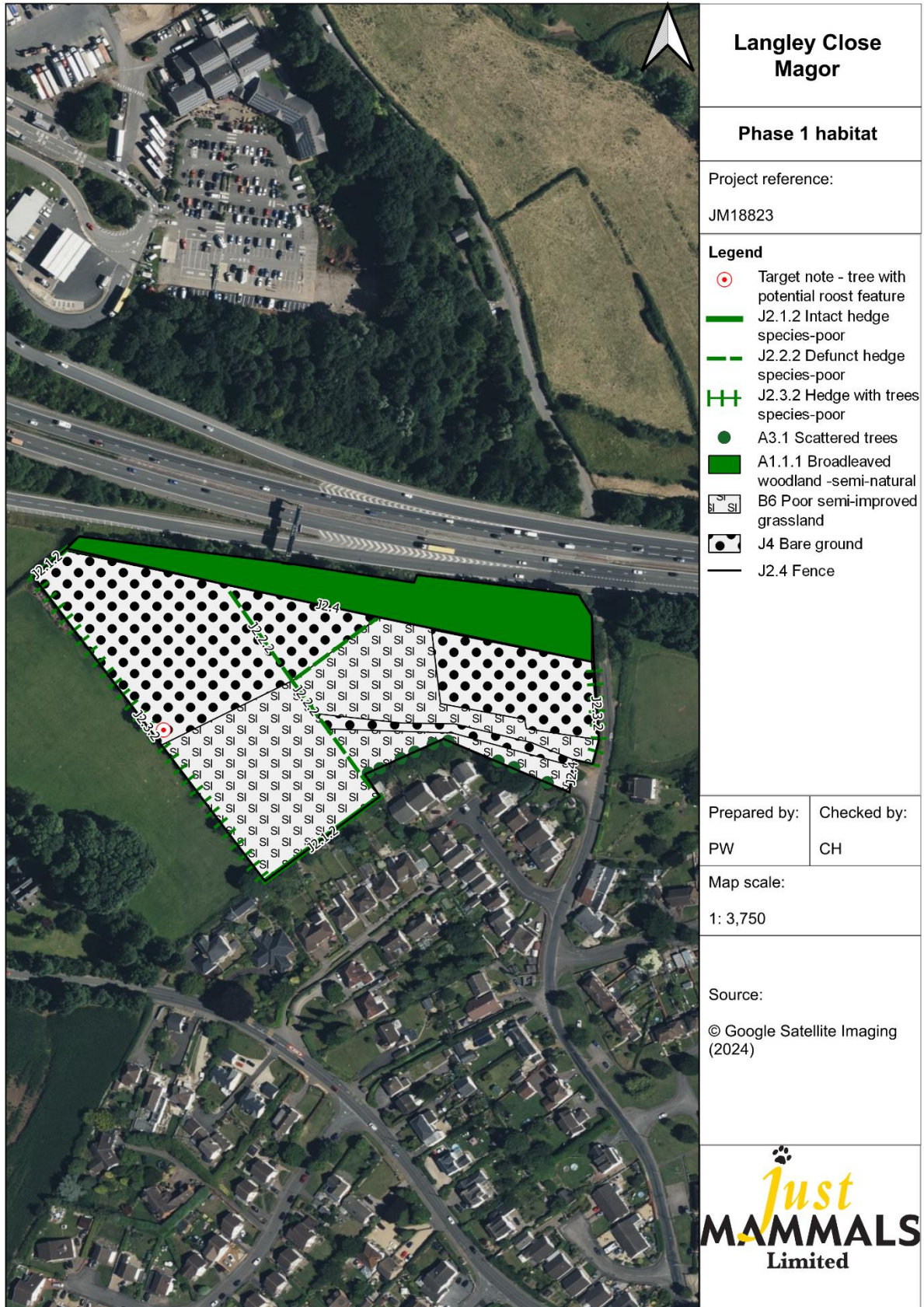


Plate 8: Target note 1, tree with potential roost feature



Appendix III: Phase 1 Habitat Map

Figure 2: Phase 1 habitat survey map



Appendix IV: Relevant Legislation

Wild birds

All wild birds, their eggs and nests are protected by The Wildlife and Countryside Act 1981 (as amended). It is an offence, with certain exceptions, to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- intentionally take or destroy the egg of any wild bird;
- sell wild birds or put them on display for sale;
- use traps or similar items to kill, injure or take wild birds; and
- intentionally, or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Penalties that can be imposed for criminal offences in respect of a single bird, nest or egg contrary to the Wildlife and Countryside Act 1981 (as amended) is an unlimited fine, up to six months imprisonment or both. In exceptional cases NRW and Natural England issues licences for specific purposes, so that legitimate work may be undertaken without breaking the law.

This document has been produced by Just Mammals Limited for Monmouthshire County Council. It may not be used by any person for any other purpose other than that specified without the express written permission of Just Mammals Limited. Any liability arising out of use by a third party of this document, for purposes not wholly connected with the above, shall be the responsibility of that party, who shall indemnify Just Mammals Limited against all claims, costs, damages, and losses, arising out of such use.

Unless specifically assigned or transferred within the terms of agreement, the consultant asserts and retains all Copyright, and other Intellectual Property Rights, in and over the document and its contents.

We confirm that in preparing this document we have exercised reasonable skill and care, taking into account the project objectives, the agreed scope of the work, prevailing site conditions, the degree of manpower and resources allocated to the project, and in compliance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

Just Mammals Limited is an ecological consultancy based in Mid-Wales. Specialising in legally protected mammal, reptile and amphibian species, but providing a wide range of ecological services, it provides appropriate expertise on behalf of a range of clients.

Clients include government departments, local and regional authorities, development agencies, commercial and industrial enterprises as well as statutory nature conservation organisations, wildlife trusts and other charitable bodies.

Please visit our web site www.justmammals.co.uk to see the full range of services we offer and some of the projects we have undertaken in the past.



Natural Problem Solvers

**Just Mammals Limited, Suite 131-136, Plas y Ffynnon, Cambrian Way, Brecon
LD3 7HP Tel: 01874 623616**