Costa Drive Thru, Wrexham– Preliminary Ecological Appraisal (PEA)

Wes No.1 Ltd

Report prepared by:
Ecus Ltd.
M I O C
Styal Road
Manchester
M22 5WB
0161 302 0280

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Ecus Ltd

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Originated By: [redacted]

Sophie Arnold
Consultant Ecologist Date: 23/05/2024

Reviewed By: [redacted]

Simona Blaze
Consultant Ecologist Date: 30/05/2024

Approved By: [redacted]

Samantha Shove
Technical Director Date: 31/05/2024

Prepared by:
Ecus Ltd.
MIOC
Styal Rd
Wythenshawe
Manchester
M22 5WB
01613 020 280

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Executive Summary

To Ecus Limited (Ltd.), was commissioned in July 2023 by Wes No.1 Ltd to undertake a Preliminary Ecological Appraisal (PEA) in relation to proposed development works at Costa Drive Thru, Wrexham, hereafter referred to as 'the Site'. The Site is located within Boarder Retail Carpark, Wrexham (central Ordnance Survey National Grid Reference: SJ 33980 50534). The Site location is presented on Figure 1.

This PEA has been undertaken to inform vegetation clearance work. The proposed works will involve the development of an existing car park area with associated landscaping, drainage, and other necessary supporting infrastructure.

The Site is primarily comprised of developed land; sealed surface (u1b), and non-native (523) mixed scrub (h3h) with a line of trees (33). On the slope leading down to Stryt Road within the northern extent of the Site, a section of other broadleaved woodland (w1g) with scattered scrub (10) is present along with a section of modified grassland (g4) with scattered trees (33).

The surrounding area is dominated by commercial and residential developments with pockets of woodland and scattered trees. Arable fields are also present within the wider landscape, often bordered by lines of trees and hedgerows, with further pockets of woodland present.

Two internationally important statutory designated sites are present within 5 km of the Site, namely one Ramsar site and one Special Area of Conservation (SAC). Two non-statutory designated sites are also present within 2 km of the Site, namely a Local Wildlife Site (LWS) and a Country Park.

Badgers

Although no evidence of badger activity was identified on Site, badgers are mobile species and may cross the Site from time to time. Therefore, Best Practice Measures (BPM) pertinent for badger are sufficient and are provided in Section 4. 3.

Bats

Roosting Bats

Just outside the northern extent of the Site boundary, two trees have been identified as having bat boxes (TN6 and TN7) and one tree has been identified as having a PRF in the form of a split trunk (TN4). These roosting features are suitable for a number of bats and are classed as having a suitability of PRF-M in accordance with current guidelines (Collins, 2023). It is understood that the bat box trees are to be felled as a result of the works and therefore the purpose of these will need to be identified and appropriate replacements provided if necessary. A suitably licenced ecologist will need to check and remove the boxes before felling. If boxes are part of licenced works, then a modification to that licence may be required. If any other trees are to be affected, it is recommended that an ecologist is contacted for further

advice on how to proceed. A bat lighting plan in relation to the development and operational phases of the project should also be produced.

Foraging and Commuting bats

Foraging and commuting opportunities for bats on Site are limited to the areas of grassland and linear trees onsite. Furthermore, the habitats immediately surrounding the Site are predominantly urban and there is a distinct absence of foraging, commuting, and connecting habitats which bats may use. Additionally, there is artificial light pollution from street lighting very close by. Therefore, these factors would limit the likelihood of bats using the Site for foraging and commuting opportunities.

Birds

If vegetation clearance or pruning of trees and hedgerows are to be undertaken within the bird nesting season (typically recognised as March to August inclusive), then any areas to be impacted should be checked for active bird nests no more than 24 hours before the works begin. If an active nest were to be discovered, an exclusion zone of at least 5 m around the nest would need to be established and adhered to until the chicks have fledged and/or the nest is no longer in use (to be confirmed by an ecologist).

Other Notable or Key Species

Hedgehogs are highly mobile and inquisitive animals and there is potential for the habitats on Site to support hedgehogs. Therefore, BPM are provided in Section 4.

1. Introduction

1.1 Background

1.1.1 Ecus Limited (Ltd.), were commissioned in July 2023 by Wes No.1 Ltd, to undertake a Preliminary Ecological Appraisal (PEA) in relation to the development of a new Costa Drive Thru, Wrexham, hereafter referred to as 'the Site'. The Site is located within Boarder Retail Carpark, Wrexham (central Ordnance Survey National Grid Reference (OSNGR): SJ 33980 50534). The Site location is presented on Figure 1. Further to the initial Site survey in January 2024, a second survey was undertaken in May 2024 to allow for the adjusted Site boundary habitats to be assessed.

1.2 Proposed Development

1.2.1 This PEA has been undertaken to inform vegetation clearance work, and the proposed works will involve the development of an existing section of the car park area for a new Costa Drive Thru, with associated landscaping, drainage, and other associated works.

1.3 Site Context

1.3.1 The Site is primarily comprised of developed land; sealed surface (u1b), and non-native (523) mixed scrub (h3h) with a line of trees (33). On the slope leading down to Stryt Road within the northern extent of the Site, a section of other broadleaved woodland (w1g) with scattered scrub (10) is present along with a section of modified grassland (g4) with scattered trees (33). Habitat composition at the Site can be seen in Figure 2.

1.3.2 The surrounding area is dominated by commercial and residential developments with pockets of woodland and scattered trees.

1.4 Purpose of this Report

1.4.1 The purpose of the PEA was to carry out an ecological desk study and an UK Habitat Classification (UKHab) and protected species suitability survey to inform an assessment of the ecological value of the Site and its potential to support notable or protected habitats and species. Inclusive of species protected under the Wildlife & Countryside Act 1981 (WCA) (as amended), the Conservation of Habitats and Species Regulations 2017 as amended and the Environment Wales Act 2016. Full details of legislation relating to those habitats and species discussed within this report can be found at: http://www.legislation.gov.uk.

1.4.2 This report details the findings of an ecological desk study and the UKHab and protected species suitability surveys carried out in January and May 2024. The methodologies employed during the survey and all survey findings are described along with an evaluation and assessment of the ecological value of the Site. Any requirement for further survey work and/or mitigation/enhancement is also detailed as required.

1.4.3 Further information and details of UK legislation for those species which are formally protected is defined in Appendix 1.

2. Methodology

2.1 Data Consultation

2.1.1 A data search was undertaken in January 2024 with Cofnod Local Record Centre to determine the presence of existing biological records or locally non-statutory designated sites of nature conservation interest within 2 km of the boundary of the Site. Species records dated within the previous 10 years were then reviewed.

2.1.2 Multi-Agency Geographical Information for the Countryside (MAGIC) website (https://magic.defra.gov.uk/) and Natural Resources Wales Data Maps (https://datamap.gov.wales/) were also consulted to obtain the following information:

- European statutory designated sites (i.e., Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)) and Ramsar wetland sites of International Importance located within 5 km of the Site.
- Statutory designated sites of national (i.e., Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs)) and local importance (i.e., Local Nature Reserve (LNR)) located within 2 km of the Site.
- Habitat Networks and Ancient Woodland within 500 m of the Site.

2.1.3 Information returned from the desktop study is summarised within the relevant sections of the report where appropriate.

2.2 Extended UK Habitat Classification Survey

2.2.1 An extended UKHab classification survey of the Site was undertaken on the 23rd of January 2024 by then Assistant Ecologist Sophie Arnold and Graduate Ecologist Serena Butterill. The second survey was undertaken on 23rd May 2024 by now Consultant Ecologist Sophie Arnold. The UKHab Survey of the Site followed standard methodology (UKHab Ltd., 2023) in accordance with the industry best practice guidance given by Chartered Institute for Ecology and Environment Management (CIEEM) "Guidelines for Preliminary Ecological Appraisal" (CIEEM, 2017). Secondary codes were selected according to relevance and the allowance within the predefined primary habitat. Habitats present across the Site were recorded on to a field map, together with other features of ecological interest, were highlighted and marked using Target Notes (TN).

2.2.2 A list of characteristic plant species for each vegetation type was compiled. This survey method aims to define the habitat types present and is not intended to provide a complete list of all plants occurring across the Site.

2.2.3 Evidence of, or potential for, protected species and/or species of nature conservation importance were recorded where present at the time of survey; this included suitability for protected species to transit or use the Site. Habitats present that are listed under Section 7 of the Environment Wales Act 2016 were also noted.

2.2.4 Survey findings and TNs are detailed in Section 3 below and annotated on Figure 2.

2.2.5 The value and sensitivity of ecological features present within the Site was determined based on the guidance given in '*Guidelines on Ecological Impact Assessment'* (CIEEM, 2018). Individual ecological receptors (habitats and species) that could be affected by the proposed development were assigned levels of importance for nature conservation, where possible. The highest level is International, then decreasing in order of importance through UK, national, regional, county, local, and lastly site level (within the zone of influence).

2.3 Protected and Key Species

2.3.1 Any evidence of protected species or groups encountered during the survey was recorded. This included observations of field signs and an assessment of the suitability of the habitats present to support protected species. For full details of legislation relating to all habitats and species discussed within this report visit http://www.legislation.gov.uk.

Amphibians

2.3.2 To assess the potential presence of Great crested newt (GCN) *Triturus cristatus* and other common amphibian species, a desk-based assessment was undertaken using OS mapping to identify all waterbodies on or within 500 m of Site that are not separated by a significant barrier to amphibian dispersal (such as a major road and/or fast flowing watercourse). As garden ponds within residential properties are often absent from OS map sources, aerial photography was also used to search for additional ponds.

2.3.3 Of the identified waterbodies within 500 m of the Site, those that are within 250 m were then focussed upon during assessment as in accordance with the Great Crested Newt Conservation Handbook *"at most sites, the majority of adults probably stay within around 250 m of the breeding pond, so the density of individuals gradually decreases away from the pond"* (Langton *et al.,* 2001).

2.3.4 In addition, the terrestrial habitats present within the Site were assessed for their suitability to support amphibians during their terrestrial stage and with consideration to their connectivity to other suitable habitat within the surrounding area.

Badger

2.3.5 Signs of badger *Meles meles* activity were searched for within and up to 30 m from the Site boundary, where accessible.

2.3.6 The survey followed standard methodology detailed in 'Surveying Badgers' (Harris *et al*., 1989). This included survey for badger setts, latrine/dung pits, foraging marks, feeding signs and pathways, specifically along linear features and boundaries within the survey area.

Bats

Roosting Bats

2.3.7 In accordance with the Bat Conservation Trust's (BCT) Good Practice Guidelines (Collins, 2023), the potential suitability of features within the Site (i*.e.* trees) to support roosting bats were categorised as PRF-I (Potential Roosting Feature-individual) or PRF-M (multiple) based on the number and type of roosting features as well as the surrounding landscape character.

2.3.8 All trees within the Site were subject to an external visual assessment, undertaken from ground-level. This approach permitted a search for the presence of Potential Roosting Features (PRFs) that have potential to be used by roosting bats.

2.3.9 An individual tree or structure may have several features of potential interest to roosting bats associated with it. It is not always possible to confirm if a feature is used by bats given the transient nature of these species.

Commuting and Foraging Bats

2.3.10 Habitats within the Site were assessed for their potential to support foraging and commuting bats. The commuting and foraging assessment methodology for the Site is based on information contained within the BCT Good Practice Guidelines (Collins, 2023), which categorises the habitat as either None, Negligible, Low, Moderate, or High suitability for commuting and foraging bats.

Birds

2.3.11 A detailed bird survey was not undertaken as part of this PEA, however, whilst undertaking the UK Habitat Classification Survey, the opportunity was taken to assess habitats within the Site for their suitability to support nesting, wintering, and breeding birds, including those with enhanced statutory protection.

2.3.12 In 2021, a re-assessment of Birds of Conservation Concern (BoCC) was published by Stanbury *et al*. (2021), which defined rare and threatened bird species on two lists (Red and Amber) describing the level of threat to each species of concern.

2.3.13 "Red" is the highest conservation priority, with species needing urgent action due to either a historical decline in breeding population, severe (>50%) decline in breeding or non-breeding population, or severe decline in breeding range over 50 years or more. "Amber" is the next most critical group, with species qualifying for this status as a result of either recovery from red list

criterion, being classed as rare breeders in the UK, moderate (>25%) decline in breeding or non-breeding population or moderate decline in breeding range over 25 years or more. These categories are followed by “Green”, indicating that the species are relatively unthreatened.

2.3.14 Desk study data was filtered for Wildlife and Countryside (WCA) Act 1981 (as amended) Schedule 1 bird species and those species protected under Annex 1 of the EU Directive on the Conservation of Wild Birds, also known as the Birds Directive. Priority species (Environment Wales Act, 2016) were likewise highlighted and the UK Red List for birds, also known as the Birds of Conservation Concern (BoCC) as described above, was also referred to.

Reptiles

2.3.15 The habitats present within the Site were assessed for their suitability to support reptiles, notably with reference to their connectivity with other areas of suitable habitat within the wider landscape. Habitat requirements were assessed with reference to the “*Reptile Habitat Management Handbook”* (Edgar, Foster & Baker, 2010). Any incidental reptile encounters made during the survey were recorded.

Riparian Mammals and White-clawed Crayfish

2.3.16 A desk-based assessment was undertaken using 1:10,000 scale OS mapping, to identify watercourses within 100 m of the Site that offer potential to support otter *Lutra lutra*, and within 30 m of the Site for water vole *Arvicola amphibius* and/or white-clawed crayfish *Austropotamobius pallipes*. Any watercourses separated from the Site by a major migration barrier (*i.e*., major roads) were not considered further as part of the assessment.

2.3.17 Any watercourses present within the survey area, where accessible, were assessed using standard survey methodologies for their suitability to support otter (Chanin, 2003), water vole (Strachan, Moorhouse & Gelling, 2011) and white-clawed crayfish (Peay, 2002).

Other Key and Notable Species

2.3.18 Habitats were assessed for their potential to support other key species, namely nationally or locally scarce or notable species (*e.g.* Environment Wales Act, 2016, Section 7 priority species), or any further species protected under nature conservation law which have not been highlighted above.

2.4 Invasive Species

2.4.1 During the extended UKHab survey any evidence of invasive species, as listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), was recorded.

2.5 Survey Limitations

2.5.1 Desk study data should not be treated as a comprehensive list of species present within a search

area. Many species are under-recorded, and the absence of records cannot be construed as the absence of a species.

2.5.2 An extended UKHab survey is intended to provide a rapid assessment of habitats present within the Site and is not intended to replace detailed vegetation or targeted protected species surveys, where deemed necessary.

2.5.3 The PEA survey was conducted outside of the optimal season (April - September) so not all vegetation, including any invasive species, could not be observed. The survey was also conducted outside of bird nesting season (March to August, inclusive).

3. Results and Evaluation

3.1 Designated Sites

Statutory Designated Sites

3.1.1 Two statutory designated sites of international importance were identified within 5 km of the Site, including one Ramsar site and one Special Area of Conservation (SAC) (Figure 3), as follows:

- Midland Meres and Mosses Phase 2 (Wales) (Ramsar) located 3.7 km north-east of the Site.
- Johnstown Newt Sites (SAC) located 4.4 km south-west of the Site.

3.1.2 No statutory designated sites of national importance are present within 2 km of the Site.

Non-Statutory Designated Sites

3.1.3 Two non-statutory designated sites are located within 2 km of the Site, as follows:

- Ergigg Estate (Local Wildlife Site) located 1.8 km south-west of the Site at its closest point.
- Ergigg Park (Country Park) located 1.8 km south-west of the Site at its closest point.

3.1.4 Ergigg Park is a National Trust Estate with woodlands, semi-improved neutral grasslands and marshes.

3.1.5 All designated sites, and their locations in relation the Site, are illustrated in Figure 3.

3.2 Habitats

3.2.1 Habitats recorded within the Site, along with their distribution and composition are discussed below. Habitat locations are presented on Figure 2.

3.2.2 No areas of Habitats of Principal Importance (HPI) were identified within 500 m of the Site boundary.

Habitats within the Site

Developed Land; Sealed Surface (u1b)

3.2.3 The Site predominantly consisted of a developed land; sealed surface carpark area associated with Boarder Retail Park with this habitat type covering 0.19 ha.

Modified Grassland (g4) with line of trees (33)

3.2.4 A section of modified grassland with a line of trees was present within the northern extent of the Site. This habitat type comprised of low diversity of species. Species recorded within this section

included: red fescue *Festuca rubra* and dandelion Taraxacum agg.

3.2.5 Modified grassland is not listed as a priority habitat under Section 7 of the Environment Wales Act, 2016 or as a priority habitat within the LBAP. This habitat is therefore of importance to nature conservation at no greater than Site level.

Other Broadleaved Woodland (w1g) with scattered scrub (10)

3.2.6 Other broadleaved woodland with scattered scrub was present within the northern extent of the Site. Tree species recorded within this section included silver birch *Betula pendula*, oak *Quercus* sp., and beech *Fagus sylvatica*. Scrub species within this section included bramble *Rubus fruticosus agg*. ivy *Hedera helix*, and cherry laurel *Prunus laurocerasus*.

3.2.7 Other broadleaved woodland is not listed as a priority habitat under Section 7 of the Environment Wales Act, 2016 or as a priority habitat within the LBAP. This habitat is therefore of importance to nature conservation at no greater than Site level.

Non-native (523) Mixed Scrub (h3h) with line of trees (33)

Non-native mixed scrub-1 (Photograph 3, Appendix 2)

3.2.8 A section of non-native mixed scrub with scattered trees was present along the western extent of the Site. Tree species recorded within this section included beech *Fagus sylvatica* and silver birch *Betula pendula*.

Non-native mixed scrub-2 (Photograph 4, Appendix 2)

3.2.9 A small area of non-native mixed scrub with scattered trees was present to the north-west section of the car park separating parking bays. The trees were common lime *Tilia x europaea* with Indian cluster berry *Lonicera ligustrina* dominating the scrub layer.

Non-native mixed scrub-3 (Photograph 5, Appendix 2)

3.2.10 A small area of non-native mixed scrub with scattered trees was present adjacent to the eastern boundary within the car park and comprises areas of Indian cluster berry, other non-native species and some bare patches of ground. The trees were common lime.

3.2.11 Non-native mixed scrub is not listed as a priority habitat under Section 7 of the Environment Wales Act, 2016 or as a priority habitat within the LBAP. This habitat is therefore of importance to nature conservation at no greater than Site level.

3.3 Species

Amphibians

3.3.1 Cofnod returned six records of amphibians (including GCN) within 2 km of the Site within the

previous 10 years. The closest records were situated 1.4 km east of the Site and pertained to palmate newt *Lissotriton helveticus*, smooth newt *Lissotriton vulgaris*, and GCN, dated 2019. No EPS licences, class survey licence return data or pond survey data pertaining to GCN were identified within 2 km of the Site.

3.3.2 A search of OS and Google Earth aerial imagery did not identify the presence of any waterbodies within 250 m of the Site.

3.3.3 The mixed scrub habitat within the Site is considered to provide some limited suitable terrestrial habitat for foraging and/or sheltering common amphibians.

3.3.4 Given the absence of suitable waterbodies on or immediately adjacent to the Site to support GCN or common amphibians during the breeding season, GCN and common amphibians are not an ecological constraint and are not discussed further in this report.

Badgers

3.3.5 [redacted]

3.3.6 No evidence of badger, such as setts, latrines, footprints, or hair were recorded during the survey. The Site was largely comprised of developed land; sealed surface and the area is considered to offer very few foraging and sett creation opportunities within the mixed scrub and woodland habitats. Additionally, the Site is situated within a highly urbanised area within the centre of Wrexham. As such, badgers are not a constraint and are not discussed further in this report.

Bats

3.3.7 Cofnod returned 13 records of bats on or within 2 km of the Site within the previous 10 years. Of these records, all pertaining to commuting and foraging bats. Species included common pipistrelle *Pipistrellus pipistrellus,* soprano pipistrelle *Pipistrellus pygmaeus,* myotis *Myotis* sp*.,* Noctule *Nyctalus noctula,* lesser horseshoe *Rhinolophus hipposiderous,* and unidentified bat species. The nearest bat record returned was situated 0.2 km south of the Site and pertains to common pipistrelle, dated 2015. The returned records also included an absence of bat activity record during a dusk survey undertaken within the Site boundary in 2020.

3.3.8 No EPS licences relating to bats were identified within 2 km of the Site using MAGIC.

<u>Roosting Bats</u>

3.3.9 Just outside the northern extent of the Site boundary, one tree (TN4, Figure 2) has been identified as having a PRF on the southern side of the tree in the form of a split trunk. Bat boxes (TN6 and

TN7, Figure 2) were also identified within the surrounding trees adjacent to the Site boundary.

3.3.10 These roosting features are suitable for a number of bats and are classed as having a suitability of PRF-M (multiple features) in accordance with current guidelines (Collins, 2023).

Foraging and Commuting Bats

3.3.11 Some foraging and commuting opportunities were present within the Site in the form of areas of mixed scrub and woodland. These are, however, likely to only be utilised by common, light tolerant bat species such as pipistrelles, given the level of noise and light disturbance in this environment.

3.3.12 In accordance with current guidelines (Collins, 2023), habitats on Site have been assessed as providing **low potential to support commuting and foraging bats**. The Site is likely to be of importance to foraging and commuting bats at a Site level only.

Birds

3.3.13 Cofnod returned 219 records of birds within 2 km of the Site within the previous 10 years, pertaining to 81 species. Of these records a total of 14 Schedule 1 species listed under the Wildlife and Countryside Act 1981 (as amended) were returned, and 13 pertained to bird species listed under Section 7 of the Environment Wales Act, 2016. Of the records which were returned, 16 species are also listed on the Birds of Conservation Concern 5 (BoCC5) red list, with a further 28 included on the amber species list. The closest bird record returned was situated 0.4 km west of the Site, and pertains to a herring gull *Larus argentatus*, dated 2022.

3.3.14 The habitats within the Site have suitability to support nesting opportunities for a common assemblage of urban fringe bird species. Additionally, bird boxes (TN2, TN3, TN5, TN6, Figure 2) were also identified within trees at the Site (Figure 2). During the survey, no signs of nesting birds were observed. However, the survey was conducted outside of bird nesting season (March to August inclusive, weather and species dependent).

3.3.15 Given the presence of similar vegetated habitats in the wider area, the Site is of value to common nesting and foraging bird species at no greater than the Site level.

Reptiles

3.3.16 Cofnod returned three records of reptiles on or within 2 km of the Site within the previous 10 years. The closest returned record was situated 1.1 km west of the Site and pertains to a common lizard *Zootoca vivipara*, dated 2018.

3.3.17 The non-native mixed scrub habitat within the Site provides some limited suitable habitat for foraging and/or sheltering reptiles. The Site comprised predominantly of open areas of developed land; sealed surface and has poor connectivity to suitable habitat within the wider area. A such, it

is considered unlikely that reptiles will be a constraint to the works and reptiles and not discussed further within this report.

Riparian Mammals

3.3.18 Cofnod returned five records of otter *Lutra lutra* and one record of water vole *Arvicola amphibius* within 2 km of the Site within the previous 10 years. The closest record of water vole was situated 0.8 km south-east of the Site, dated 2015, and the closest record of otter was situated 1.5 km south-east of the, dated 2019. Both records were within the River Clywedog.

3.3.19 No waterbodies or watercourses have been identified within 500 m of the Site boundary and there was a lack of suitable riparian habitat within, or surrounding, the Site. As such, riparian mammals are not a constraint to the works and are not discussed further within this report.

Other Key and Notable Species

3.3.20 Hedgehog

3.3.21 Cofnod returned 46 records of hedgehog *Erinaceus europaeus* within 2 km of the Site within the previous 10 years. The nearest hedgehog record was situated 0.2 km to the south of the Site, dated 2017.

3.3.22 No evidence of hedgehog was found during the survey. The non-native mixed scrub and woodland with scattered scrub habitats within the Site provide some limited suitable habitats for foraging and/or sheltering hedgehog.

3.3.23 Given the limited presence of suitable habitat within the Site and the opportunities that the Site provides, it is of importance to hedgehog at no greater than the Site level.

Invasive Species

3.3.24 Cofnod returned 24 records of invasive non-native species on or within 2 km of the Site pertaining to Himalayan balsam *Impatiens glandulifera*, Japanese knotweed *Reynoutria japonica*, giant hogweed *Heracleum mantegazzianum,* New Zealand pigmyweed *Crassula helmsii*, three-cornered garlic *Allium triquetrum*, and Himalayan cotoneaster *Cotoneaster simonsii*. The closest record of INNPS returned was situated 0.4 km west of the Site and pertained to Himalayan balsam, dated 2017.

3.3.25 During the survey, no INNS were identified within the Site boundary. However, the Site has potential to support INNPS within sections of other neutral grassland and dense scrub.

4. Impact Assessment and Recommendations

4.1 Designated Sites

4.1.1 Due to the distance (closest being 3.7 km), lack of hydrological connection or similar habitat types between the Site and designated sites, it is unlikely that the proposals will directly impact upon these designated areas.

4.2 Habitats

4.2.1 Habitats recorded within the Site are common and widespread within the local area, as well as of low botanical significance. Therefore, the loss of these habitats during the completion of any de-vegetation or development works will not have any significant ecological impacts.

4.2.2 Where possible, it is recommended that the trees within the site should be retained and adequately protected as much as possible throughout the works in accordance with the tree protection plan and advice from an arboriculturist. Although the scattered trees and line of trees may have potential value for roosting bats as well as nesting birds, the intrinsic value of the habitats are of importance at Site level only.

4.3 Protected and Key Species

Bats

Roosting bats

4.3.1 Just outside of the Site boundary, two trees have been identified as having bat boxes (TN6 and TN7, Figure 2) and one tree has been identified as having a PRF in the form of a split trunk (TN4, Figure 2). These roosting features are considered to be suitable for a number of bats and are classed as having a suitability of **PRF-M** (multiple features) in accordance with current guidelines (Collins, 2023).

4.3.2 It is understood that the bat box trees are to be felled as a result of the works and therefore the purpose of these will need to be identified and appropriate replacements provided if necessary. A suitably licenced ecologist will need to check and remove the boxes before felling. If boxes are part of licenced works, then a modification to that licence may be required. If any other trees are to be affected, it is recommended that an ecologist is contacted for further advice on how to proceed.

4.3.3 A bat lighting plan in relation to the development and operational phases of the project should also be produced as noted below.

Foraging and Commuting Bats

4.3.4 Given the habitats present at the Site, the small-scale nature of the development, and connectivity

to other areas in the wider landscape, in line with best practice guidelines found in (Collins, 2023), the Site has **low** potential for use by foraging and commuting bats, with suitable foraging and commuting opportunities for bats limited to the small woodland area within the northern aspect of the Site. As such, it would be disproportionate to carry out bat activity surveys at the Site, as vegetation clearance works at the site would not have any significant impacts on the local bat population. It is recommended that a bat lighting plan in relation to the development and operational phases of the project is produced as detailed below.

Bat Lighting Plan

4.3.5 Following good practice guidance shown in Bat Conservation Trust (BCT) and Institution of Lighting Professionals (ILP, 2023), to minimise the disruption to potential bat flight lines during the development and operational phases of the project, it is recommended that a Sensitive Lighting Plan for Biodiversity is produced, particularly if night works are required. The Lighting Plan should be developed in accordance with current guidance from the Bat Conservation Trust and Institution of Lighting Professionals *'Bats and Artificial Lighting in the UK – Bats and the built environment series'* (Guidance note 08/18). In particular, it should avoid/minimise light spill onto the off-site habitats, lighting columns should be kept as short as possible, hoods or cowls added to avoid unnecessary light spill and lighting must also be turned off when not in use.

Birds

4.3.6 The Site provides suitable habitat for nesting and foraging birds in the form of grassland, scrub, and trees. Given the presence of similar vegetated habitats in the wider area, the Site is of value to common urban fringe species at no greater than the Site level.

4.3.7 If proposed works require pruning or vegetation clearance to be undertaken during the active bird nesting season (March to August inclusive, weather and species dependent), then any areas to be impacted should be checked by an ecologist for active bird nests no more than 24 hours before the works begin, or subject to clearance under the supervision of a suitably experienced ecological clerk of works (ECoW).

4.3.8 If an active nest were to be discovered, an exclusion zone (minimum 10m radius) around the nest would need to be established and maintained until a suitably experienced person has confirmed the birds have fledged or that the nesting attempt has concluded.

Other Key and Notable Species

<u>Hedgehog</u>

4.3.9 46 records of hedgehog were returned within 2 km of the Site, the nearest of which was from 0.2 km to the south of the Site, dated 2017.

4.3.10 No evidence of hedgehog was found during the survey, however, the other neutral grassland, mixed scrub and hedgerows within the Site provide some limited suitable habitats for foraging and/or sheltering hedgehog.

4.3.11 As such, it is recommended that any vegetation clearance which is completed is carried out adhering to BPMs for hedgehog, which includes the following:

- Should any excavations need to be left open and unattended during the night or for a long period of time, it is recommended that they are covered and weighed down, and that a suitable escape ramp is installed, *e.g.* a long scaffold board, inserted to allow escape should small mammals fall in.

- Any existing log/ brash piles to be retained where possible, if required to be moved must be dismantled by hand to search for animals prior to removal.

- It is recommended that if night works are required, these should follow a sensitive lighting plan to minimise unnecessary disturbance to any mammals that may be in the local area. This involves keeping light to a minimum throughout the works and ensuring that only the task area is lit and light spill onto vegetated and surrounding habitats is avoided where possible.

- If a hedgehog is discovered during the works at any time during active period (April to October inclusive), they should be allowed to move away on their own volition. In the event that hedgehogs are in immediate danger they can be moved carefully with clean gloved hands to a sheltered area (*e.g.,* dense scrub).

- If any hedgehogs are encountered between November and March, or if any juveniles or injured/unwell hedgehogs are encountered at any time, an ecologist will be contacted for advice immediately, it is likely that the ecologist will remove the individuals and take them to a local wildlife rescue centre.

4.4 Invasive Non-Native Species

4.4.1 Given the presence of habitats within the Site have the potential to support INNPS, it is recommended that works adhere to the following BPMs for INNPS:

- If a suspected INNPS is identified by site personnel before or during the works, an exclusion zone of a minimum 7 m should be implemented around the suspected INNPS, in order to limit contact with and further spread of these species.

- If INNPS are to be impacted, any material with the potential to contain any propagules of Schedule 9 listed plant species (*e.g.* seeds, roots, stems, shoots) constitute contaminated waste. It must not be scattered around the Site and must be securely bagged and disposed

of according to the appropriate management plan. This includes soil, as well as cut plant material.

- Tools, clothing, machinery and any other equipment that may have come into contact with propagules of Schedule 9 listed plant species must be decontaminated before leaving the Site.
- Any material resulting from de-contamination must be securely bagged and disposed of according to the appropriate management plan. Details on the identification of INNPS can be found at http://www.nonnativespecies.org.

5. References

Bat Conservation Trust (BCT) and Institution of Lighting Professionals (ILP) (2023) 'Bats and Artificial Lighting in the UK – Bats and the built environment series' (Guidance note 08/18). ILP, Rugby, Warwickshire. BCT, London.

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UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at https://ukhab.org/)

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Figure 1: Site Location Plan



ecus
part of CuraTerrae

Key

Site Boundary

0 50 100 150 200 250 m

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Figure 1
Site Location Plan

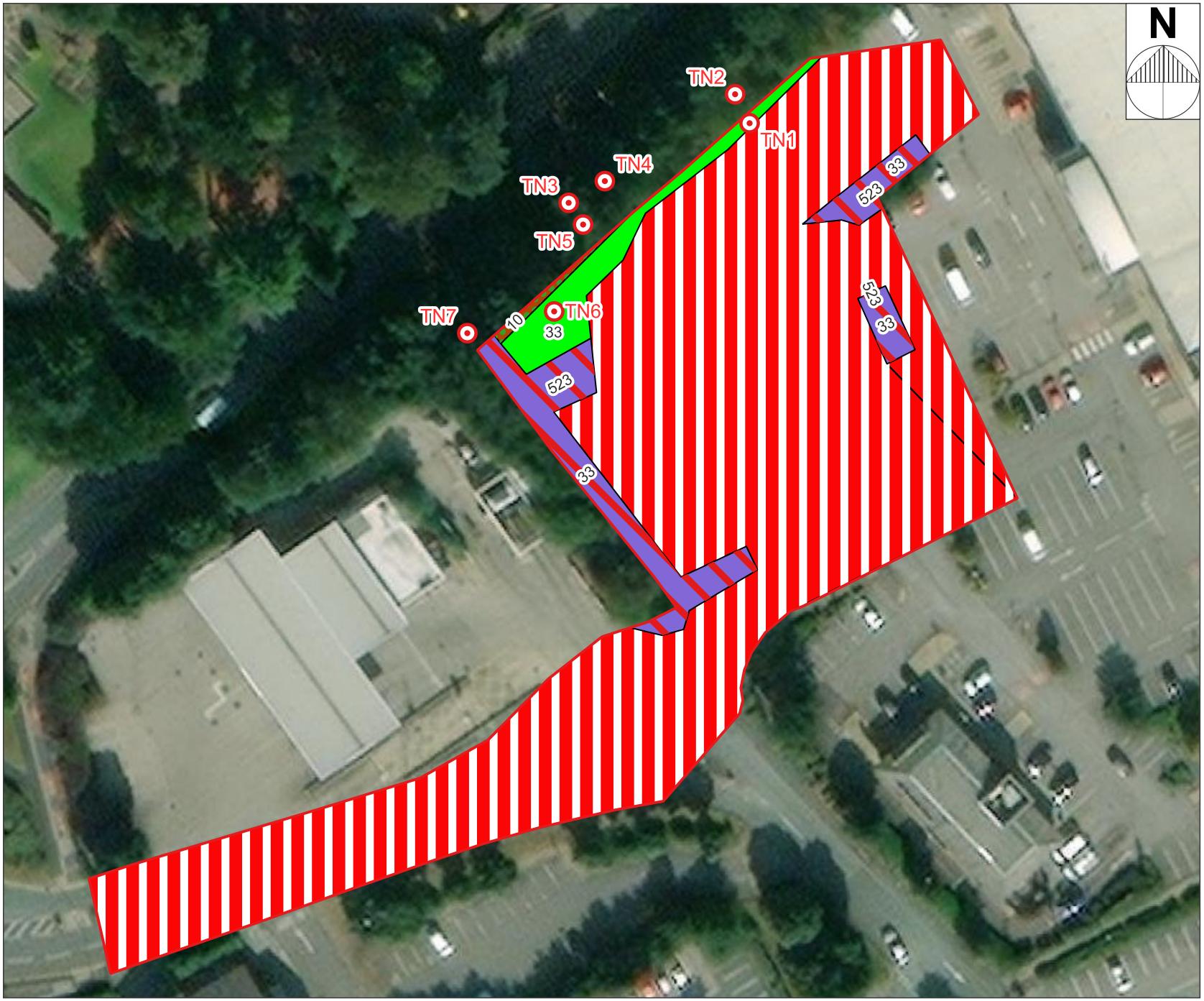
Rev	Date	Drawn by	Checked by	Revision Comments
B	23.05.2024	SA	PFP	New Site boundary
A	08.02.2024	SB	PFP	-

Site centred on:	SJ 33980 50534

Esri, Maxar, Earthstar Geographics, and the GIS User Community | May 2024 | Scale: 1:5,400 @A4 | Drg.Ref: 21955 - ECO - 1 - B

Figure 2: UK Habitat Classification Map

Target Note	Grid reference	Description
TN1	SJ 33985 50574	Bug hotel.
TN2	SJ 33983 50578	Bird box.
TN3	SJ 33960 50563	Bird box.
TN4	SJ 33965 50566	PRF. South facing high branch. Split trunk.
TN5	SJ 33962 50560	Bird box.
TN6	SJ 33958 50548	Bird and bat box.
TN7	SJ 33946 50545	Bat box.



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Key

- Survey Area
- Target notes

Habitat

- g4 - modified grassland (with line of trees-33)
- w1g - Other broadleaved woodland (with scattered scrub-10)
- h3h - mixed scrub (non-native-523) (With line of trees-33)
- u1b - developed land; sealed surface

0 7 14 21 28 35 m

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Figure 2
UK Habitat Classification Map

Rev	Date	Drawn by	Checked by	Revision Comments
B	23.05.2024	SA	PFP	New Site boundary
A	08.02.2024	SB	PFP	-

Site centred on:	SJ 33980 50534

Figure 3: Designated Sites Map



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Key

- Site Boundary
- 5 km buffer
- 2 km buffer

Statutory Designated Sites

- Ramsar
- Special Areas of Conservation (SAC)
- Country Parks

Non-statutory Designated Sites

- Local Wildlife Sites (LWS)

0 1 2 3 km

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Figure 3
Designated Sites Map

Rev	Date	Drawn by	Checked by	Revision Comments
B	23.05.2024	SA	PFP	New Site boundary
A	09.02.2024	SB	PFP	-

Site centred on:	SJ 33980 50534

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Appendix 1: Relevant Legislation

5.1.1 This section briefly summarises the relevant legislation pertaining to the relevant designated sites, habitats and species. The full legislation is detailed below. Please note that the following text does not constitute legal advice.

Ecological feature	Summary of relevant legislation
Statutory Designated sites	Special Protection Areas (SPAs) Ramsar Sites were designated under the EU Birds Directive and Habitats Directive. Both SPAs and Ramsar sites are within Natura 2000, or European, sites. See below for further legislative details and specific site information.
Non-statutory Designated sites	Local Wildlife Sites and Country Parks do not receive any specific legal protection.
Habitats of Principal Importance (Wales)	Under the Environment (Wales) Act (2016), Section 7 requires biodiversity lists to be produced. These lists include types of species which are of "Principal Importance" for the purpose of maintain and enhancing biodiversity in relation to Wales. This list supersedes the duty in Section 42 of the NERC Act 2006.
Bats	Bats and their roosts are legally protected under the Habitats Regulations (Conservation of Habitats and Species Regulations, 2017 (as amended) making them a European Protected Species (EPS)) and the Wildlife and Countryside Act, 1981 (as amended). Some species of bat (e.g. the brown long-eared, noctule and soprano pipistrelle) are also Species of Principal Importance (SPI) included on a list that was prepared in response to the Natural Environment and Rural Communities (NERC) Act.
Great Crested Newt	Great crested newts and their habitat are legally protected under the Conservation of Habitats and Species Regulations (the 'Habitats Regulations') 2017 (as amended) and the Wildlife and Countryside Act, 1981 (as amended) (WCA). Great crested newts are classified as Species of Principal Importance (SPI) under the NERC Act.
Badger	Badgers and their places of shelter (setts) are protected under specific legislation known as the Protection of Badgers Act 1992. This prohibits (among other things) the killing or injury of badgers, the damage or destruction of setts and disturbance of badgers occupying setts.
Birds	All nesting birds are legally protected from killing and injury with their active nests and eggs being protected from damage and destruction under the WCA. A selection of bird species (including the dunnock, song thrush and starling among others) are also SPI

Ecological feature	Summary of relevant legislation
	under the NERC Act. Some bird species are on the 'Red List and Amber List' of species of high and medium conservation concern respectively. This does not confer any additional legal protection or status but should be taken into consideration. Bird species listed on Schedule 1 of the WCA are subject to additional protection, which prohibits their disturbance whilst breeding, and would include activities near to a nest site. Wintering birds are not protected by legislation in this context (they are only protected during the breeding season from disturbance).
Reptiles	Reptiles are legally protected from intentional killing and injury under the under the WCA; reptiles are also classified as SPIs.
Water vole	Water voles and their breeding and resting habitats receive protection under the Wildlife and Countryside Act, 1981 (as amended). Water voles are also classified as SPIs.
Non-native Invasive Plant Species	Himalayan Balsam, Yellow variegated archangel and cotoneaster were all identified on the Site and are listed on Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended). It is illegal to plant or other cause to grow in the wild any plant included on Schedule 9 of the WCA. Note that the Department for Environment Food and Rural Affairs (DEFRA) do not consider planting of Schedule 9 species in private gardens, estates and amenity planting as 'planting in the wild' so long as reasonable measures are taken to confine them to the cultivated area (i.e. to prevent spread into the wild).

Conservation of Habitats and Species Regulations 2017 (as amended)

The conservation of Habitats and Species Regulations transpose the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora ("The Habitats Directive") into law.

The 2017 Regulations consolidate the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The regulations provide for:

- designation and protection of European Sites (Special Protection Areas (SPA) and Special Areas of Conservation (SAC)) including the need for Appropriate Assessment' of plans and proposals;
- protection of European protected species.
- adaptation of planning and other controls for the protection of European Sites; and
- make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2.

Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) were designated under the EU Birds Directive and Habitats Directive, respectively. Together, SPAs and SACs make up a series of sites collectively known as Natura 2000, or European, sites. If plans or projects (not directly related to site management) are proposed that could have an effect on the interest features of a Natura 2000 site (even if

the proposed works are outside the boundary of the designated area), the relevant competent authority (in consultation with Natural England) has a duty to consider whether the site could be affected. If effects could occur, an appropriate assessment is required to determine whether significant adverse effects on the qualifying interest of the site could occur, either alone or in combination with other plans or projects. This enables avoidance or mitigation to be developed to ensure potential adverse impacts are no longer significant. If negative impacts cannot be avoided, or if uncertainty remains, consent for works will only be granted if there are no alternative solutions, there are imperative reasons of over-riding public interest for the works and compensatory measures have been secured. As a matter of policy, Ramsar sites (wetland sites of international importance designated under the Ramsar Convention 1971) are protected as European sites in the same way.

No steps that will impact upon a European protected species or its habitat can be undertaken unless authorised by a European Protected Species licence issued by Natural England. Such a licence is granted until after planning consent has been granted once Natural England are satisfied that adequate measures are to be put in place to mitigate for the impact of the development.

Wildlife and Countryside Act 1981 (as amended)

The Act implements the Convention of European Wildlife and Natural Habitats (The Bern Convention) and the Directive 2009/147/EC 'The Birds Directive'.

The 1981 Act has been amended by the Countryside and Rights of Way (CROW) Act 2000.

Schedules 1 (birds) and 5 (animals) of the Act identify species of bird and other animal in relation to which the Act makes killing, injury, taking and disturbance an offence while Schedule 8 to the Act lists species of plant in relation to which the Act makes it an offence to intentionally pick, uproot or destroy.

Section 14(2) of the Act makes it an offence to cause any species of animal or plant listed in Schedule 9 of the Act to grow in the wild.

Sites of Special Scientific Interest (SSSI) are notified under the Wildlife and Countryside Act (WCA) 1981 (as amended). Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way (CRoW) Act 2000 (in England and Wales). In essence, SSSIs are protected through the approach to land use and management. Certain activities are prohibited within a SSSI (generally those likely to damage the special interest) or require consent from the relevant statutory body (in this case Natural England). Each SSSI has a list of 'operations requiring consent'; if any of these activities are proposed, a landowner or site manager must first seek permission from Natural England in writing prior to undertaking the activity. Works can be excluded from the consenting process if they are required in an emergency (although Natural England must be notified as soon as possible) or if they have been approved through the planning application process, or by other statutory bodies, where Natural England have already been consulted.

The Environment Wales Act 2016

The Environment (Wales) Act 2016 is an Act of the National Assembly for Wales that promotes sustainable management of natural resources.

Section 7 (S.7) of the Environment (Wales) Act (2016) is a legal provision that requires the Welsh Ministers to prepare and publish a list of the living organisms and types of habitats which are of principal importance for biodiversity in Wales1234. The list is intended to help maintain and enhance the biodiversity of Wales and guide the actions of public authorities and other stakeholders.

The Protection of Badgers Act, 1992

Badgers are protected under the Protection of Badgers Act 1992. This makes it an offence to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so; or to intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it. A licence can be granted by Natural England to permit works that would otherwise result in an offence (e.g. to allow sett closure where activities close by may otherwise result in disturbance or damage to the sett).

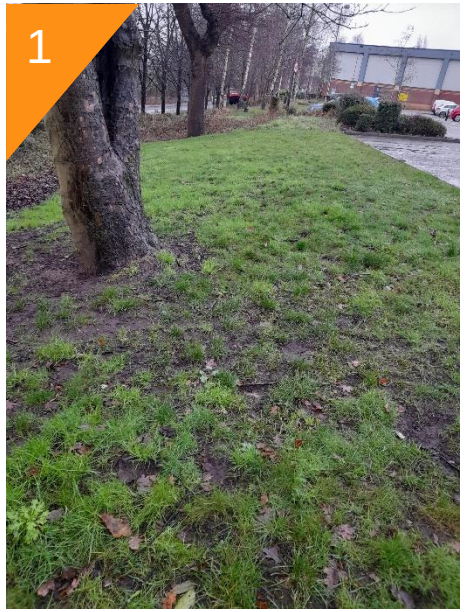
Wild Mammals (Protection) Act, 1996

Under the Wild Mammals (Protection) Act 1996 it is an offence to cause unnecessary suffering to wild mammals, including crushing and asphyxiating. This Act is primarily concerned with animal welfare and aims to prevent cruelty. As a result, offences include those actions with the intent to inflict unnecessary suffering. A wild mammal includes any mammal which is not domestic or captive. Red foxes, wild deer and other mammals such as rabbits are therefore covered by the Act.

Invasive Non-native Species

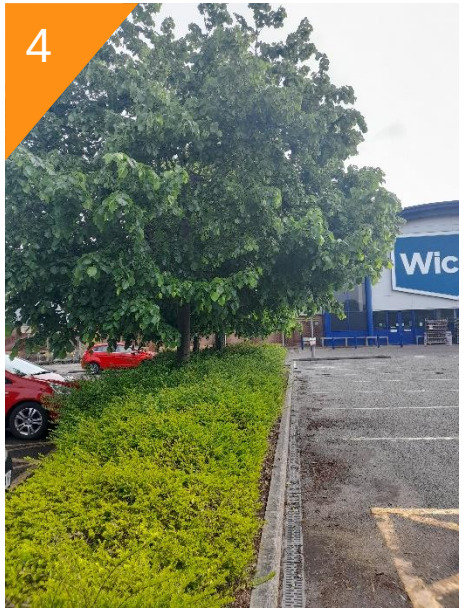
Schedule 9, Section 14 of the Wildlife and Countryside Act (1981, as amended) prohibits the introduction into the wild of any species that is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state, or any species of the 69 plants listed on Schedule 9. Schedule 2 of The Invasive Alien Species (Enforcement and Permitting) Order 2019 aims to prevent and manage the introduction and spread of invasive alien species.

Appendix 2: Site Photographs











Photograph 1: Modified grassland (g4) with scattered trees (32).

Photograph 2: Dense scrub (h3) – Laurel.

Photograph 3: Mixed scrub-1 (h3h), non-native (523) with scattered trees (32).

Photograph 3: Mixed scrub-2 (h3h), non-native (523) with scattered trees (32).

Photograph 3: Mixed scrub-3 (h3h), non-native (523) with scattered trees (32).

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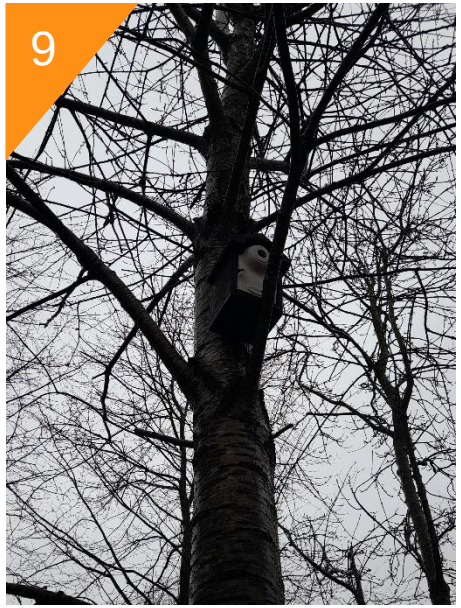
Appendix 1: Site Photographs

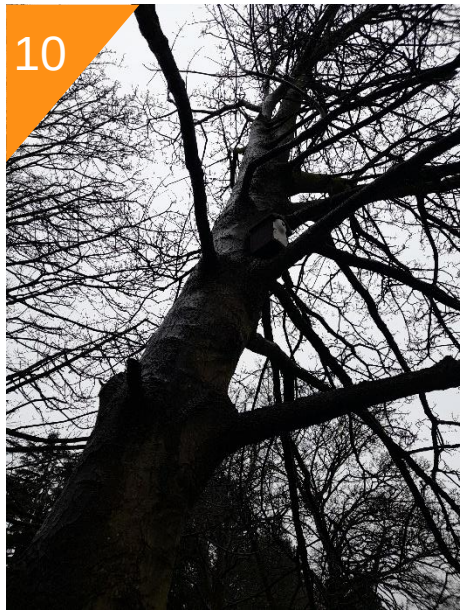
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Photograph 6: Non-native ornamental hedgerow (h2b) with line of trees (33).

Photograph 7: developed land sealed surface (u1b).

Photograph 8: TN1 - Bug hotel.

Photograph 9: TN2 - Bird box

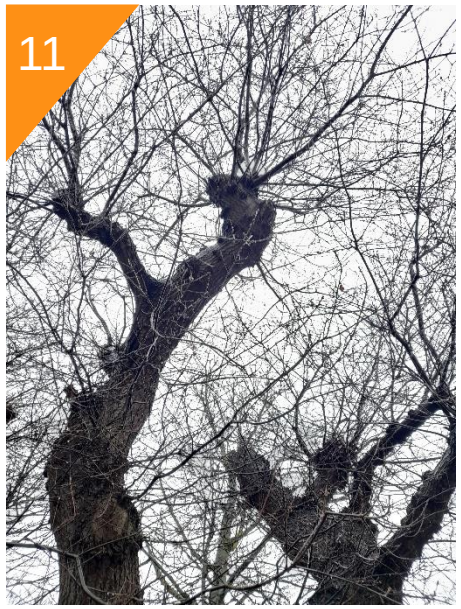
Photograph 10: TN3 - Bird box.

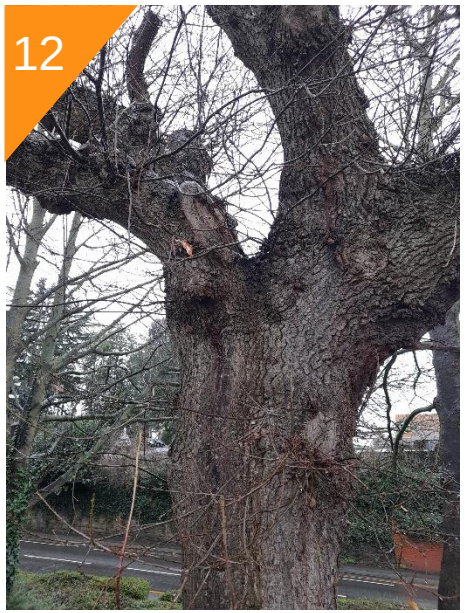
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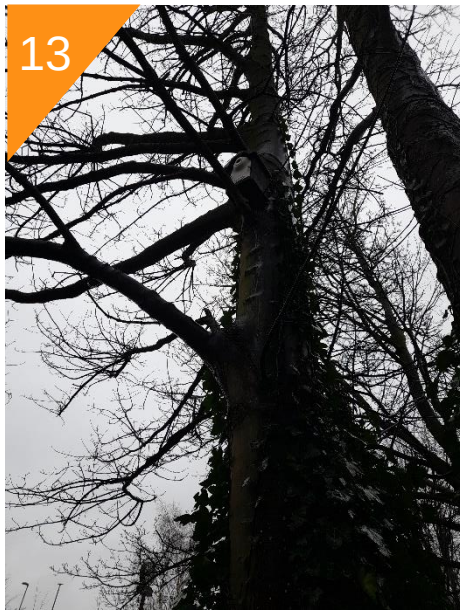
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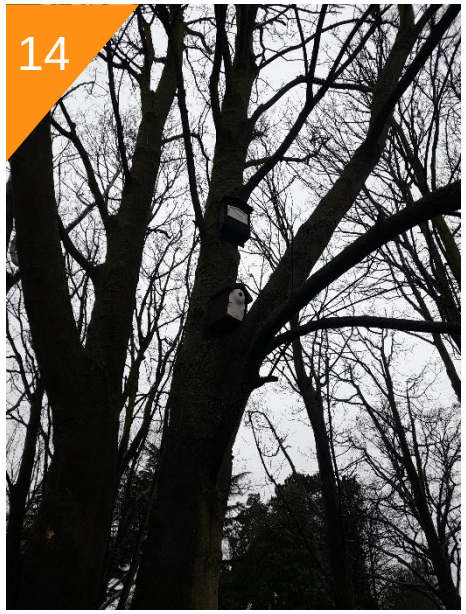
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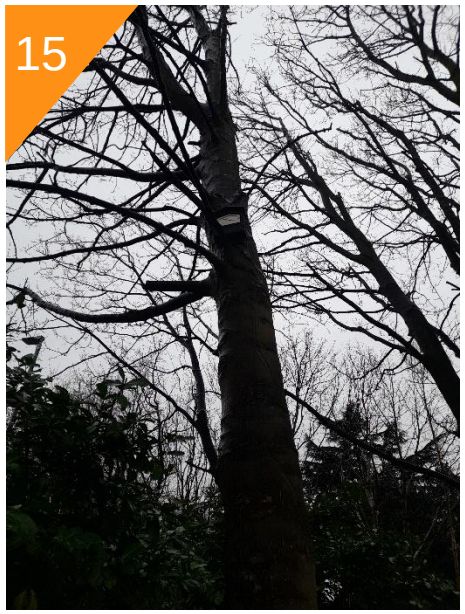
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Photograph 11: TN4 - PRF.

Photograph 12: TN4 - PRF.

Photograph 13: TN5 - Bird box.

Photograph 14: Bird and bat boxes. TN6.

Photograph 15: Bat box. TN7.

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