



**East Pye Solar
Environmental Statement
Volume 3: Appendix 8.5 - Ground Level Tree
Assessment**

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Executive Summary

Stantec was commissioned by East Pye Solar Ltd to undertake Ground Level Tree Assessment (GLTA) surveys for bats to inform the design evolution of the Development Consent Order (DCO) process for the proposed East Pye Solar (also referred to as the 'Scheme').

A total of 621 trees, across the Order Limits, were identified as having Potential Roost Features (PRF) (PRF-M 213 & PRF-I 217) or could not be fully inspected and were categorised as Further Assessment Required (FAR) (191), following the initial GLTA survey.

There are a large number of trees within the Order Limits by virtue of its size; however, their density is typical of the wider arable landscape within which it sits and intrinsically, the habitats are of Local Level importance.

Surrounding woodlands are known to sustain bat roosts including barbastelle bat *Barbastella barbastellus* maternity colonies and the Order Limits fall within the Core Sustainance Zone (CSZ) of several of these. There is therefore potential for barbastelle roosts in immediately surrounding woodlands which could be of importance at up to the National level, as well as roosts of other tree-roosting species including rarer or range restricted species.

The Scheme design seeks to avoid impacts upon trees potentially containing bat roosts and other habitats such as woodland, hedgerows, scrub are largely avoided and incorporated within the Scheme design. With only potential minor direct impacts upon these habitats during the construction (and potentially decommissioning phases).

Potential construction phase lighting impacts will be readily avoided through the avoidance of extensive night-time working, and sensitive design of temporary lighting. No permanent external artificial lighting is expected to be used within the Scheme once operational, other than motion sensing lighting which will be implemented around electrical infrastructure to be used only for maintenance and security purposes only.

If the final development plans change and include impacts to trees with FAR rating or confirmed PRF, further tree suitability should be undertaken, where necessary, and each PRF found during the inspection should be given a suitability rating (PRF-I or PRF-M). Where impacts to PRF-M trees are unavoidable, further survey will be required pre-commencement to confirm the presence or likely absence of bat roosts and characterise any roosts present.

If bats are confirmed roosting within the tree(s), no tree works will commence until a European Protected Species Mitigation License (EPSML) has been issued by Natural England (NE) and necessary mitigation measures set in place under the supervision of a licensed ecologist. This will ensure there are no adverse impacts on roosting bats and will maintain the favourable conservation status of the roosting bat species in the wider environment. For trees with suitability but no confirmed roosts or trees with features that are assessed as having PRF-I suitability, it is possible that trees could be felled/subject to surgery under a Precautionary Working Method Statement (PWMS).

Disclaimer

This Executive Summary contains an overview of the key findings and conclusions. However, no reliance should be placed on any part of the executive summary until the whole of the report has been read.

1 Introduction

1.1 Background

- 1.1.1 Stantec was commissioned by IGP to undertake GLTA surveys for bats in relation to an application to be made to the Secretary of State under Section 37 of the Planning Act 2008 (as amended), seeking a DCO for the Scheme on land located south of Norwich and north of Harleston (the Order Limits), see further details below.
- 1.1.2 This report provides details of surveys undertaken to inform proposals and includes the results of a desk study, and GLTA survey to determine the potential for roosting bats in and immediately surrounding the Order Limits and includes a preliminary evaluation of the geographical importance of the Site for roosting bats.
- 1.1.3 In addition to the GLTA surveys, bat activity surveys in the form of transect surveys and static detector surveys were undertaken during the 2024 and 2025 survey seasons. The aim of these surveys was to identify the species present, and use of the habitats within the Site by bats. As such, this report should be read in conjunction with **ES Vol III, Appendix 8.6: Bat Activity Survey Report [EN0110014/APP/6.3.8.6]**.

Scope of report

- 1.1.4 The GLTA survey included an assessment of all trees within and immediately adjacent (within 10m) to the Order Limits (henceforth referred to as ‘the ‘Survey Area’), comprising the areas allocated for solar arrays, National Grid Substation, Project Substations, Battery Energy Storage Site (BESS), highway improvement areas, and the Cable Route Corridor (CRC). The Order Limits are shown in **Figure 1**.
- 1.1.5 The objectives of the report are to:
- present the methodology used and identify any constraints encountered during the GLTA survey;
 - present the results of the ecological desk study; and
 - based on the results of the desk study and surveys, provide a preliminary assessment of the geographical importance of the Order Limits for roosting bats.
- 1.1.6 The report is based on the following sources of information:
- a data search for records of bats within the Order Limits and within a 2km radius and for records of barbastelle roosts within 6km;
 - a search for internationally important designated sites for bats within a 10km radius;
 - a search for nationally important designated sites for bats within a 5km radius;

- a search for non-statutory designated sites, priority habitats and ancient semi-natural woodland within 2km, and
 - a GLTA Survey (Collins, 2023) to identify and map trees with Potential Roost Features (PRF) present.
- 1.1.7 This will be used to identify any potential ecological constraints associated with the Scheme that may risk contravention of legislation or policy.
- 1.1.8 This report has been prepared with reference to best practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2017; 2018) and as detailed in British Standard 42020:2013 Biodiversity - Code of Practice for Biodiversity and Development (BSI, 2013).
- 1.1.9 Barbastelle Bat Roost Locations and Associated core sustenance zones (CSZ's) are provided in **Figure 1**, survey results plans are provided within **Figure 2**, example photographs are provided within **Annex 1**, and details of relevant legislation in **Annex 2**.

1.2 Order Limits Context and Scheme Description

- 1.2.1 The Order Limits are located within the administrative areas of Norfolk County Council and South Norfolk Council. Order Limits are the maximum extent of land anticipated to be acquired and/or used for the construction, operation and maintenance, and decommissioning phases of the Scheme. A description of the Order Limits can be found in **Chapter 3 – The Order Limits [EN0110014/APP/6.1.3]**.
- 1.2.2 The location of the Site and surrounding landscape is shown in **Figure 1**.

The Scheme

- 1.2.3 The Scheme comprises the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating station with a total capacity exceeding 100 megawatts (MW) and associated development including a Battery Energy Storage System (BESS), up to three 132 kV Project Substations and up to three 400 kV Project Substations, Grid Connection Infrastructure and a new National Grid Substation. A description of the Scheme can be found in **ES Vol I, Chapter 4 – The Scheme [EN0110014/APP/6.1.4]**

1.3 Relevant legislation

- 1.3.1 Bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). A more detailed description of this legislation is provided in **Annex 2**.
- 1.3.2 The actions that could result in an offence occurring under the above legislation include the killing, injury, or disturbance of bats within (and, in some cases, away

from) a roost; loss, damage or destruction of a roost; obstructing access to or from a roost; or modification of a roost. If development proposals are likely to result in an offence, then a EPSML (otherwise known as a derogation licence) must be obtained from Natural England prior to works commencing, to provide a legal derogation from the relevant legislation.

2 Methodology

2.1 Desk Study

- 2.1.1 A data search was conducted to obtain bat records and details of non-statutory designated sites within a 2 km radius of the Order Limits, as made available by the Norfolk Biodiversity Information Service (NBIS) and/or Norfolk Barbastelle Study Group (NBSG).
- 2.1.2 Publicly available material including the Barbastelle Review published by the NBSG has also been consulted (Harris, 2020) to identify where the Order Limits lay within the 6km Core Sustainance Zones (CSZ) of known maternity colonies.
- 2.1.3 In addition, NBSG provided further information regarding a Barbastelle roost location study (Harris, 2025) undertaken during 2025 in close proximity to the Order Limits. Information from this study has also been utilised for the desk study.
- 2.1.4 Additional contextual information was compiled from publicly available data sources, including:
- MAGIC (<http://www.magic.gov.uk>): The Government's online mapping service. Information was sought regarding: the presence of ancient semi-natural woodland (ASNW), statutory designated sites, and extant or historic mitigation licences for bats. Searches for internationally designated sites extended to 10km around the Site and 5km for nationally designated sites. For mitigation licences, priority habitats and ASNW this extended to 2km; and
 - Ordnance Survey mapping and publicly available aerial photography to determine any features such as running and standing water, woodland, tree lines, hedgerows, railway corridors, and the surrounding landscape uses.
- 2.1.5 Several previous and ongoing ecological surveys have been undertaken of the Order Limits, relating to bats; these have been reviewed and are listed below.
- The Extended Habitat Survey (provided as **ES Volume III, Appendix 8.1: Ecological Desk Study & Extended Habitat Survey [EN0110014/APP/6.3.8.1]**), which includes an initial assessment of the Order Limits and its suitability for bats, as well as any suitable trees with PRF noted during the PEA; and
 - Bat activity surveys have been undertaken and assess the suitability of habitats within the Site for foraging and commuting bats (provided as **ES Volume III, Appendix 8.6: Bat Activity Survey Report [EN0110014/APP/6.3.8.6]**).

2.2 Ground Level Tree Assessment

- 2.2.1 The GLTA survey area included an assessment of all trees within and immediately adjacent (within 10m) to the Order Limits.

- 2.2.2 GLTA surveys were undertaken in accordance with the most recent guidance from the Bat Conservation Trust (BCT) guidelines, 4th edition (Collins, 2023). The primary objective of the survey was to assess the suitability of trees for roosting bats, quantify the number of trees with suitability, and determine the need for further detailed bat surveys, and/or mitigation measures.
- 2.2.3 The surveys were undertaken across the 2024 and 2025 Summer and Autumn seasons, and January 2026 in combination with Preliminary Ecological Appraisals and Habitat Condition Assessments surveys (see **ES Volume III, Appendix 8.1: Ecological Desk Study & Extended Habitat Survey [EN0110014/APP/6.3.8.1]**).
- 2.2.4 The surveys were conducted by suitably qualified and experienced Ecologists with experience of surveying trees and assessing features for bat roosting suitability. Details regarding surveyors can be provided upon request. The surveys comprised a ground level inspection of the exterior of all trees to look for the presence of features that bats could use to roost, also known as potential roosting features (PRF). Information recorded included: surveyor name, parcel name, date, tree species, tree life stage, tree diameter at breast height, suitability of the tree for climbing and use of an endoscope, survey limitations, and tree locations (What3Words).
- 2.2.5 The GLTA was undertaken systematically, assessing all parts of the tree from all accessible sides and angles (including close to the trunk and further away), where possible. Binoculars were used to search for any potential roosting features higher up in the canopy, and a high-powered torch was used to enable better visibility, where necessary.
- 2.2.6 Where trees were present on or close to the Order Limits boundary, a precautionary approach was taken, and all trees which could be impacted have been included as part of the assessment.
- 2.2.7 Features which could be considered potential roosting features include, but are not limited to:
- Woodpecker holes;
 - Knot holes;
 - Pruning wounds;
 - Tear-outs;
 - Wounds;
 - Cankers;
 - Compression forks;
 - Butt rot;
 - Lightning strikes;
 - Cracks;
 - Hazard beams;
 - Desiccation fissures;
 - Lifting bark; and
 - Extensive Ivy.

- 2.2.8 Trees were assigned as being suitable or not suitable for roosting bats based on the criteria outlined in the Bat Conservation Trust Guidelines (2023) as well as professional judgement. The criteria are detailed in **Table 2.1**, below. Where this could not be ascertained, they were categorised as FAR (Further Assessment Required).
- 2.2.9 If possible (from ground level) trees have been further assigned as either PRF-I or PRF-M in adherence to the criteria set out in **Table 2.2**.

Table 2.1 Guidelines for Assessing the Suitability of Trees.

Suitability	Description
NONE	Either no PRF in the tree, or highly unlikely to be any.
FAR	Further assessment required to establish if PRF are present in the tree.
PRF	A tree with at least one PRF present.

Table 2.2 Guidelines for Categorising the Potential Suitability of PRF.

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF-M is suitable for multiple bats and may therefore be used by a maternity colony.

2.3 Geographic Evaluation

- 2.3.1 Where sufficient baseline data was available, the Order Limits ecological importance for GCN has been evaluated broadly following guidance issued by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018) which ranks the nature conservation importance of a site according to a geographic scale of reference: international, national, regional (East Anglia), metropolitan, county (Norfolk), vice-county or other local authority-wide area (South Norfolk); and of importance at the zone of influence of the Site only. In evaluating the nature conservation importance of the Order Limits, the following factors were considered:
- nature conservation designations;
 - species/habitat rarity;
 - naturalness;
 - fragility; and
 - connectivity to other habitats.
- 2.3.2 An assessment of likely ecological impacts has been undertaken in accordance with CIEEM guidelines (CIEEM, 2018) in reference to the Bat Mitigation Guidelines (Reason & Wray, 2025) as part of **ES Vol I, Chapter 8 - Ecology and Biodiversity [EN0110014/APP/6.1.8]**. Where clear evidence is available to substantiate and justify the findings. Potential impact pathways are discussed in **Section 4.2** below.

2.4 Limitations

- 2.4.1 It should be noted that even where biological data is not held, a lack of records for a defined geographical area does not necessarily equate to a lack of ecological interest; the area may be simply under-recorded.
- 2.4.2 All trees were surveyed for their suitability to support roosting bats; however, due to the large number of trees present within the Order Limits, trees considered to have no suitability (NONE) for roosting bats were not mapped.
- 2.4.3 Trees associated with boundary features may not have been surveyed from all sides and all angles due to a lack of access to neighbouring land parcels, or the presence of built linear features such as a fence. In these cases, a precautionary principle was adopted.
- 2.4.4 Where trees are located close to the Order Limits boundary they may be presented as outside of the red line boundary on the maps due to inaccuracies in the data, or variation of and accuracy limitations with gps coordinates, not because they are offsite. At the time of the surveys, any trees within 10m which appear to be along field boundaries or in proximity to the Order Limits boundary with overhanging canopies, they have been included as part of the assessment.
- 2.4.5 A proportion of these surveys were undertaken at a sub-optimal time of the year, notably during the plant growing season, when trees are in full leaf and PRF could potentially be obscured or not visible from ground level. Where there was potential for PRF to be obscured or the tree could not be fully inspected, a precautionary approach to categorisation was taken.
- 2.4.6 PRF are not always visible, and it is not always possible to determine how extensive PRF are from ground level; as such, the categorisation of a tree's suitability is preliminary and precautionary, at this stage.
- 2.4.7 It should be noted that bats switch roosts regularly throughout the year, particularly within trees. The trees and woodlands themselves are also dynamic and subject to change so existing PRF can be lost, and new ones appear over time.

2.5 Report Qualification

- 2.5.1 At the time of the completion of this report, the surveys and assessments have been conducted in accordance with best practice guidelines (Collins, 2023). Site circumstances, scientific knowledge, or the methodological requirements can change during the course of a project, and these external factors may impact the scope of subsequent work requirements.
- 2.5.2 All work has been carried out by experienced and suitably qualified ecologists, in accordance with the Code of Professional Conduct of the Chartered Institute of Ecology and Environmental Management (CIEEM) (CIEEM, 2023).
- 2.5.3 All ecological surveys have an expected validity period owing to the tendency of the natural environment to change over time. This validity period varies

depending on the receptor, the site-specific management, and the ecology of the landscape. Where there is a possibility of change and it is considered to be relevant, this is highlighted in the applicable section.

- 2.5.4 This report does not purport to provide detailed, specialist legal advice. Where legislation is referenced, the reader should consult the original legal text and/or the advice of a qualified environmental lawyer.

3 Results

3.1 Desk Study

Bat Roost Records

- 3.1.1 The data search through NBIS returned a total of 479 records of bats within 2 km of the Site within the last 10 years (from 2014 to 2024). These include a total of 11 confirmed species and a further four unidentified bat species, including *Chiroptera* (bat) species (*sp.*), *Pipistrelle* *sp.*, *Myotis* *sp.*, and *Plecotus* *sp.* (likely brown long-eared bat).
- 3.1.2 Records relating to roosts were returned by NBIS for barbastelle *Barbastella barbastellus*, brown long-eared bats *Plecotus auritus*, Natterer’s bats *Myotis nattereri*, serotine *Cnephaeus serotinus*, common pipistrelle *Pipistrellus pipistrellus*, and soprano pipistrelle *Pipistrellus pygmaeus* bats, as well as unidentified pipistrelle and long-eared bat species. The closest was a brown long-eared bat and common pipistrelle roost located 32m south-west of sub-Site 4B, whereby bats were observed roosting in stables and a dairy barn. The closest roost records returned by NBIS dated from the last ten years (2014 – 2024) are detailed in **Table 3.1**.

Table 3.1: A summary of the closest bat roost records returned by NBIS within the last ten years (including 2014), for all *Chiroptera* species.

Species	Date	Distance and Orientation	Notes
Pipistrelle bat species	2015	~32m southwest of Sub-Site 4B	Roosting in clay lump stables.
Common pipistrelle and brown long-eared bat	2015	~32m southwest of Sub-Site 4B	Both species observed emerging from day roosts in dairy barn.
Common pipistrelle and brown long-eared bat	2017	~246m south of Sub-Site 5B	Total of seven individuals observed roosting within the Old Rectory (same as EPSML record, see Table 3.5).
Common pipistrelle and brown long-eared bat	2014	~277 m southwest of Sub-Site 10C	Scattered droppings found within building.
Natterer's bat and common pipistrelle	2016	~579m west of CRC4	Observed and recorded emerging from roost inside barn and under barn gable bargeboards.
Common pipistrelle	2024	~1.10km south of Sub-Site 3B	Two records of individuals observed emerging from a barn.
Common pipistrelle	2022	~1.10km southeast of CRC4	Two bats observed emerging from a building.
Pipistrelle bat species	2017	~1.36km north-east of Sub-Site 3B	Droppings observed within church.
Long-eared bat	2016	~1.510km east of Site 9	Droppings observed within church.
Barbastelle, Natterer's bat, common pipistrelle, soprano pipistrelle, and brown long-eared bat	2014	~1.06km west of CRC4	Recorded active inside barn.

Species	Date	Distance and Orientation	Notes
Common pipistrelle	2015	~1.05km west of CRC4	Recorded active onsite, passing from a nearby roost.
Common pipistrelle	2022	~1.30km east of CRC4	2 emerged from roost on the building.
Pipistrelle bat species	2017	~1.68km north-east of Sub-Site 10E	Droppings observed within church porch.

3.1.3 A search of the MAGIC database returned a total of six mitigation licence (EPSML) records (ten including licence updates) for bats within 2km of the Site within the last 10 years. A summary of these records is provided in **Table 3.2**.

Table 3.2: A summary of granted mitigation licences (EPSML) returned by the MAGIC database within 2 km of the Order Limits over the last ten years.

EPSML	Species	Date	Impact	Distance and Orientation
2017-30714-EPS-MIT	Brown long-eared bat and common pipistrelle	2017 to 2018	Destruction of a roost	~246m south of Sub-Site 5B
2015-14218-EPS-MIT-1, 2015-14218-EPS-MIT-2, and 2015-14218-EPS-MIT-3	Brown long-eared bat, common pipistrelle, Natterer's bat, and soprano pipistrelle	2016/17 to 2023	Destruction of a roost	~100m south-west of Sub-Site 4B
2018-33516-EPS-MIT and 2018-33516-EPS-MIT-1	Common pipistrelle and soprano pipistrelle	2018 to 2019	Destruction of a roost	~1km north of Sub-Site 7D
2015-16585-EPS-MIT	Brown long-eared bat, common pipistrelle, and soprano pipistrelle	2016 to 2021	Destruction of a roost	~1.28km west of the CRC4 between Sites 2 and 5
EPSM2013-6636, 2014-4043-EPS-MIT, and 2014-4043-EPS-MIT-1	Common pipistrelle, brown long-eared bat, barbastelle, and Natterer's bat	2013 to 2015, 2014 to 2016, & 2014 to 2015	Destruction of a roost	~1.47km south-east of the CRC4 between Sub-Sites 2 and 5
2020-50285-EPS-MIT	Brown long-eared bat and common pipistrelle	2020 to 2027	Destruction of a roost	~1.85km south-east of Sub-Site 10B

Barbastelle Bat

3.1.4 The barbastelle bat is an Annex II species under the Habitats Directive and is classed as vulnerable in the UK by the IUCN. Whilst rare, East Anglia is a known stronghold for the species nationally, in particular in Norfolk. As a result, it has been identified as one of the core areas suitable for the implementation of the Species Recovery Programme (Harris, 2020).

3.1.5 Following surveys conducted by a number of organisations, including NBSG, as of 2020, 24 maternity colonies have been confirmed to be present across the county. All of the colonies are located within woodland, with the exception of the Great Paston Barn SAC maternity colony, which resides in a 16th Century building. Data from radio-tracking by NBSG (Harris, 2020) showed that 70 to 100% of woodland roosts were typically under loose bark, comprising either bark slabs or bark collars. Barbastelle maternity colonies start to form in late May, initially in small groups in different tree roosts, but then coalesce to form larger groups in late June before the pups are born in early July. The species

exhibits frequent roost-switching between trees within roost woodlands with radio-tracking studies in Norfolk showing that colonies start to fragment in mid to late August and multiple roosts are used. On average, it was found that individual females used between two and six different roosts during a tracking period of 7-14 days. As a result, the size of a roost in a particular tree will vary greatly due to splitting and coalescing of the maternity colony.

- 3.1.6 The findings also support the notion that buildings do not generally support maternity colonies, but that agricultural barns are frequently used by roosting individual barbastelles, with undeveloped barns and sheds usually brick and pantile typically supporting occasional night roosts for both males and females. Trees outside of woodlands may also be used for lower status roosts.
- 3.1.7 Harris (2020) found that for woodland roosts, the woodlands are foraging areas in their own right and that foraging areas targeted are typically arable mosaics ranging from 30 to 229ha with linear features being of particular importance. Home ranges were also calculated for the most intensively tracked maternity colonies, with the distance found to be travelled from woodland roosts averaging at 3.5km, with no bats travelling beyond 5.5 km. It is concluded that these figures are consistently less than the suggested CRZ of 6km for this species (Collins, 2023). It is considered likely that Norfolk provides sufficiently productive foraging areas close to woodland roosts. Radio tagging and trapping in the autumn indicates that female barbastelles do not appear to disperse more than 5km from maternity sites, and that numerous records of barbastelle in agricultural barns throughout the winter indicate these types of buildings are likely to be of importance for roosting outside of the maternity period.
- 3.1.8 NBSG monitoring of barbastelle in the winter shows that they are winter-active and are frequently recorded flying in woodlands, with barbastelles rarely found in underground hibernation sites, instead appearing to stay within tree roosts during more mild winters.
- 3.1.9 A total of eleven records were sourced from the Norfolk Barbastelle Study Group (NBSG) relating to barbastelle maternity colonies. These records are listed in **Table 3.3**. Barbastelle maternity roost locations and associated CSZs are provided within **Figure 1**.

Table 3.3: A summary of all maternity colony records returned by NBSG, within 6 km of the Order Limits.

Distance and Orientation	Date	Location	Details
Colonies with CRZs which overlap with the Order Limits:			
~138m east of Sub-Site 7F	2015	Saxlingham Grove	Medium colony size (South Norfolk context)
~300m north of CRC9	2025	Spring Wood	Unknown roost size
~500m west of Sub-Site 8B	2025	Little Wood	Large colony size (Norfolk context)
~650m west of Site 9	2025	Brooke Wood	Unknown roost size

Distance and Orientation	Date	Location	Details
~490m east of CRC4	2017	Tyrrels Wood	Large colony size (South Norfolk context)
~2.5km north-west of Sub-site 7D	2018	Smockmill Common	Medium colony size (South Norfolk context)
~5.4km south-east of CRC4	2019	Gawwdy Hill Woods	Large colony size (South Norfolk context)
~6km north-west of Sub-site of 4A	2022	Tacolneston	Large colony size (South Norfolk context)
~6km south-east of CRC9	2019	Earsham Woods	Medium colony size (South Norfolk context)
Colonies with CRZs outside of the Order Limits:			
~6.5km north-west of Sub-site 4A	2018	Hethel	Small colony size (South Norfolk context)
~6.8km north-west of Sub-site 4A	2016	Ashwellthorpe Lower Wood	Small colony size (South Norfolk context)

3.1.10 A total of 68 records of barbastelle were returned by NBIS, including recent and historic records dating back to 1987. Of these, a total of six records relate to confirmed barbastelle roosts within 2km of the Order Limits. The six roost records are listed in **Table 3.4**.

3.1.11 The closest barbastelle roost record is of a peak count of 30 bats recorded during emergence surveys between 2010 and 2012, located within a parcel of woodland known as Saxlingham Grove. The record is located approximately 47m north-east of sub-site 7F. Saxlingham Grove is part of the Shotesham-Woodton Hornbeam Woods SSSI and also shares boundaries with the sub-sites 7F and 7H. NBSG also included data of a maternity colony in Saxlingham Grove, as per **Table 3.3**, this record was not received within the NBIS data and therefore has not been included in **Table 3.4** below (although an additional Saxlingham Grove roost has been).

Table 3.4: A summary of the closest barbastelle roost records returned by NBIS, within 2 km of the Order Limits.

Distance and Orientation	Date	Location	Details
~47m north-east of Sub-Site 7F	2010 to 2012	Saxlingham Grove	Ten records and a peak count of 30 individual bats recorded during emergence surveys, with roosts located in two ash trees and one oak.
~161m north-east of Sub-Site 7F	2012	Saxlingham Grove	Three records and a peak count of two bats, one audibly detected and one caught from a roost.
~188m north-east of Sub-Site 7F	2010 to 2012	Saxlingham Grove	Three records and a peak count of 22 individual bats recorded during emergence surveys, with roosts located in a dead oak tree.
~222m north-east of Sub-Site 7F	2010	Saxlingham Grove	Discovery of a lactating female.
~1.1km west of LIR	2014	Tharston	One bat observed active inside a barn, audio recorded.
~1.96km east of Site 9.	1987	Kirstead	Found under bark of tree during the winter.

Statutory Designated Sites

- 3.1.12 The Order Limits is not subject to any statutory nature conservation designations. Five Internationally Important Wildlife Sites (IIWS) are present within 10km of the Site, the nearest being Norfolk Valley Fens SAC, located approximately 2.55km north-west of the Order Limits.
- 3.1.13 There are 11 Sites of Special Scientific Interest (SSSI) within 5 km of the Order Limits, the closest being Shotesham-Woodton Hornbeam Woods SSSI, which shares boundaries with Parcels 7F and 7H. There are three Local Nature Reserves (LNR) within 5 km of the Order Limits, including Bath Hills, Broome Heath, Smockmill Common.
- 3.1.14 None of the statutory designated sites are designated for bats and they are not mentioned in their site citations; however, based on the data presented above, confirmed barbastelle roosts are present in Saxlingham Grove SSSI, Smockmill Common LNR, and the habitats present in other designated woodland sites are likely to be of value for roosting and foraging/commuting bat purposes.

Non-Statutory Designated Sites

- 3.1.15 There are sixty non-statutory designated sites within the 2 km search area. Of these, 36 are County Wildlife Sites (CWS) and 24 are Roadside Nature Reserves (RNR). None of the non-statutory designated sites are designated/notified for bats and they are not mentioned in their site citations; however, the habitats present are likely to be of value for roosting and foraging/commuting purposes.
- 3.1.16 A full list of all statutory and non-statutory designated sites together with a description of their reasons for designation is provided in Table 4.1 of **ES Volume III, Appendix 8.1: Ecological Desk Study & Extended Habitat Survey [EN0110014/APP/6.3.8.1]**.

Irreplaceable Habitats

- 3.1.17 There are no parcels of ancient woodland within the Order Limits boundaries. There are 31 areas of woodland listed within the Ancient Woodland Inventory (AWI)¹, and four areas of lowland fen (totalling fourteen individual parcels) located within 2 km of the Sites and CRC; one (Fritton Grange Meadows CWS) being partially located within CRC7. These habitat sites receive protection via the NPPF², in which they are listed as an 'irreplaceable habitat' and under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024³.

¹ Available at: https://naturalengland-defra.opendata.arcgis.com/datasets/a14064ca50e242c4a92d020764a6d9df_0/explore?location=52.830611%2C-2.004678%2C7.54 (accessed October 2025)

² Available at: <https://www.gov.uk/guidance/national-planning-policy-framework/15-conserving-and-enhancing-the-natural-environment> (accessed October 2025)

³ Available at: <https://www.legislation.gov.uk/ukxi/2024/48/note/made> (accessed October 2025)

3.1.18 A full list of irreplaceable habitats together with information is provided in **ES Volume III, Appendix 8.1: Ecological Desk Study & Extended Habitat Survey [EN0110014/APP/6.3.8.1]**.

Priority Habitats

3.1.19 Desk study analysis indicates that the Sites and CRC are dominated by arable field parcels, which include priority hedgerow habitat field boundaries. Multiple ponds are present within and surrounding the Sites and CRC. Occasional blocks of lowland deciduous woodland are present within and surrounding the Sites and CRC. Notably, floodplain grazing marsh is located within Sub-Site 7B and within CRC7 (Fritton Grange Meadows CWS) along with lowland fen priority habitat (classified as irreplaceable habitat – see above).

3.1.20 A full list of priority habitats together with information is provided in **ES Volume III, Appendix 8.1: Ecological Desk Study & Extended Habitat Survey [EN0110014/APP/6.3.8.1]**.

3.2 Field Survey

3.2.1 A total of 621 trees, across all survey areas, were identified as either requiring further assessment (FAR) to establish bat roost suitability or as having PRFs, following the GLTA. Of these a total of 577 trees were located within or immediately adjacent to the sub-Sites and 44 trees located within or immediately adjacent to the CRC/Highway Improvement Area parcels.

3.2.2 During the GLTA surveys, a proportion of trees were also assessed as having no suitability (NONE) due to a lack of potential roosting features. Due to the limited value of these trees (for roosting bats) it was not considered necessary to record detailed information about these trees and therefore their location is not presented within this report.

3.2.3 Within the Sites/Sub-Sites, a total of 168 trees were recorded as FAR, 207 trees recorded as PRF-M and a total of 202 trees were assessed as having PRF-I suitability. **Table 3.5** shows the total number of trees recorded as FAR or as having PRF per Sub-Site, as well as the total number of trees across all of the sub-Sites.

3.2.4 Within the CRC/Highway Improvement Area parcels, a total of 23 trees were recorded as FAR, six trees were recorded to have PRF-M, and a total of 15 trees were assessed as having PRF-I suitability. **Table 3.6** shows the total number of trees recorded as FAR or as having PRFs per CRC and Highway Works, as well as the total number of trees across all of the CRC/Highway Works

3.2.5 Aerial maps showing the location of trees recorded as FAR or as having PRF are available **Figure 2**.

Table 3.5: Total number of trees with FAR and PRF suitability within each Sub-Site.

Sub-Site	FAR	PRF-M	PRF-I	Sub-total	Sub-Site	FAR	PRF-M	PRF-I	Sub-total
BESS	1	4	1	6	7D	8	0	6	14
1A	3	2	2	7	7E	9	2	2	13
1B	5	2	5	12	7F	23	2	12	37
1C	5	2	0	7	7G	1	4	5	10
2A	1	2	4	7	7H	4	0	2	6
2B	2	3	6	11	7J	13	0	2	15
2C	2	0	1	3	7K	3	0	0	3
3	10	5	9	24	7L	1	0	0	1
4A	4	17	11	32	8A	3	3	10	16
4B	9	30	21	60	8B	2	9	9	20
5A	6	2	8	16	9	0	8	4	12
5B	23	14	26	63	10A	1	7	7	15
7A	3	1	2	6	10B	4	9	6	19
7B	2	6	1	9	10C	1	25	12	38
7C	4	9	21	34	10D	1	0	1	2
7C	4	30	0	34	10E	2	3	6	11
7D	8	6	0	14					
Total:						FAR	PRF-M	PRF-I	Total
						168	207	202	577

Table 3.6 Total number of trees with FAR and PRF suitability within the CRCs and Highway Works areas.

Area	FAR	PRF-M	PRF-I	Sub-total	Area	FAR	PRF-M	PRF-I	Sub-total
CRC1	1	0	4	5	CRC9	0	0	1	1
CRC2	3	0	0	3	CRC10	4	5	5	14
CRC4	1	0	1	2	CRC11	1	0	0	1
CRC6	10	1	0	11	CRC13	0	0	4	4
CRC7	1	0	0	1	LHL	2	0	0	2
Total:						FAR	PRF-M	PRF-I	Total
						23	6	15	44

4 Evaluation

4.1 Geographical Level of Importance

- 4.1.1 It is not currently possible to accurately assign a level of importance to the Order Limits in respect of roosting bats; further data and surveys would be required to establish the number, species and status of roosts within trees. A precautionary assessment of the roost resource within the Order Limits is therefore provided below on the basis of the information to date.
- 4.1.2 There are a large number of trees within the Order Limits by virtue of its size; however, their density is typical of the wider arable landscape within which it sits and intrinsically, the habitat is of Local Level importance.
- 4.1.3 621 trees are considered to have potential to support roosting bats; 577 of these are located within Sites 1-10/BESS Site, and 44 trees within the CRC and Highway Works boundaries. Surrounding woodlands are known to support bat roosts including barbastelle maternity colonies and the Order Limits fall within the published 6km CSZ (Collins 2023) of nine of these known colonies as well as within the typical ranges shown to be used by barbastelle bats from maternity colonies in Norfolk specifically (Harris 2020). It is therefore considered likely that the habitats within the Site provide potentially suitable roosting resources for this species. Maternity colonies located at Tyrells Wood, Little Wood, Brooke Wood, Spring Wood, and Saxlingham Grove are present in close proximity to the Order Limits, with CSZ's for these roosts (combined) covering the entire Order Limits area. There is therefore the potential for barbastelle roosts, including hibernation roosts, to be present on and surrounding the Order Limits, which could be of importance at up to the National level (Reason and Wray 2025). The roosts of other tree-roosting species may also be present as part of the bat assemblage, which may include rarer or restricted distribution species such as whiskered bat *Myotis mystacinus*, Leisler's bat *Nyctalus leisleri* and Nathusius' pipistrelle *Pipistrellus nathusii* detected during activity surveys at the Site (ES Volume III, Appendix 8.6: Bat Activity Survey Report [EN0110014/APP/6.3.8.6]).
- 4.1.4 Due to the extent of trees with PRF present, and the known presence of maternity roosts of rare tree roosting species in proximity to the Order Limits, the tree roost resource across the Order Limits is precautionarily considered to be of importance at up to the **National level** in accordance with Reason and Wray (2025).

4.2 Discussion

Potential Impact Pathways

- 4.2.1 A detailed impact assessment is not presented in this report as full details of the Scheme and status of roosts (if present) within trees on Site are not known; however, potential impact pathways are discussed in outline below.

- 4.2.2 Trees and woodland within the Order Limits are potentially considered likely to provide roost resources for bats (as well as foraging and commuting habitat for nearby bat roosts as part of their CSZ). Furthermore, tree lines and hedgerows connect the Order Limits to a network of suitable habitats within the wider landscape, also likely to contain bat roosts.
- 4.2.3 The removal of trees or groups of trees to facilitate the Scheme, as well as any works associated with the construction phase of the Scheme are considered highly likely to result in impacts to bats. The removal of trees and lines of trees could result in the damage or destruction of bat roosts and the death or injury of bats, as well as fragmentation of commuting routes and foraging resources.
- 4.2.4 Furthermore, construction activities directly adjacent to the trees or woodland could result in indirect impacts upon bats through disturbance, as well as the removal of vegetation.
- 4.2.5 The Scheme design seeks to avoid impacts upon trees and other habitats such as woodland, hedgerows, scrub are largely avoided and incorporated within the Scheme design, with only potential minor direct impacts upon these habitats during the construction (and potentially decommissioning phases) such as the removal of short hedgerow 10m (maximum) sections to accommodate internal haul routes/access tracks and the temporary and localised CRC works (construction phase). Further information is provided within the **Outline Landscape and Ecology Management Plan [EN0110014/APP/7.4]**.
- 4.2.6 Potential construction phase lighting impacts will be avoided through the avoidance of extensive night-time working adopting an 07:00 to 18:00 working hours pattern (March to September sunset times when bats are at their most active are generally after 18:00), however, some illumination may be required to support specific localised and short-term activities, such as Horizontal Directional Drilling (HDD) works and deliveries/movements of Abnormal Indivisible Loads (AILs), and sensitive design of construction/decommissioning phase lighting which will be detailed within the **Outline Construction Environmental Management Plan [EN0110014/APP/7.1]** and **Outline Decommissioning Environmental Management Plan [EN0110014/APP/7.3]** and secured through a requirement attached to the DCO. Lighting would be designed to avoid the illumination of trees/woodland/hedgerow habitats potentially utilised by roosting bats.
- 4.2.7 No permanent external artificial lighting is expected to be used within the Scheme once operational, other than motion sensing lighting which will be implemented around the National Grid Substation, 132kV and 400 kV Project Substations, BESS and Conversion Units and Switch Rooms (located within the Solar PV Arrays) to be used only for maintenance and security purposes only. Once the Scheme is operational, it is expected to operate unmanned and remain unlit under normal conditions, with all external lighting switched off. Lighting will only be activated during scheduled maintenance, in emergency situations or for security purposes. The **Outline Operational Environmental Management Plan [EN0110014/APP/7.2]** will

include details of sensitive lighting design, which will be positioned to avoid woodland and trees with PRFs.

Recommendations

4.2.8 In line with the mitigation hierarchy⁴, in the first instance, trees should be retained, where possible. Tree removal and reduction work upon and/or in close proximity to trees with suitability to support roosting bats should be avoided. The avoidance of impacts upon these trees will negate the requirement for mitigation.

Trees Currently Assessed as FAR

4.2.9 If the final development plans include direct impacts (removal/reduction) or indirect impacts of trees assessed as FAR, a more accurate assessment of roosting resource may be required to fully establish the potential presence of PRFs, which could include licenced aerial inspection surveys were considered necessary.

4.2.10 If no PRFs are found, then the tree in question can be downgraded to NONE (either no PRF in the tree, or highly unlikely to be any), with no further formal mitigation measures required. If PRFs are confirmed the recommendations in the following paragraphs should be followed.

Trees Currently Assessed as PRF

4.2.11 If the final development plans include direct impacts (removal/reduction) or indirect impacts (additional illumination for example) to trees with confirmed PRF, further mitigation may be required.

4.2.12 Where impacts to PRF-M trees are unavoidable, further survey will be required to confirm the presence or likely absence of bat roosts and characterise any roosts present. These surveys may include licenced aerial inspection surveys (which are only possible upon trees considered to be suitable for climbing and endoscope inspections). If close inspection is not possible then night-time emergence surveys may be required with the use of Night Vision Aids (NVA), in adherence to current guidance documents (Collins. 2023).

4.2.13 If bats are confirmed roosting within the tree(s), no tree works will commence until a EPSML (issued by NE) has been issued and necessary mitigation measures set in place under the supervision of a licensed ecologist. This will ensure there are no adverse impacts on roosting bats and will maintain the favourable conservation status of the roosting bat species in the wider environment.

4.2.14 For trees with suitability but no confirmed roosts or trees with features that are assessed as having PRF-I suitability, it is possible that trees could be felled/subject to surgery under a Precautionary Working Method Statement

⁴ The mitigation hierarchy is a framework set out in the NPPF to address the potential harm to biodiversity, as a result of development. The approach states that the avoidance of harm should be prioritised to prevent biodiversity loss, before compensation. The stages include avoidance, minimisation, restoration, and offsetting.

(PWMS). This will likely include a pre-works inspection, appropriate timing of works and potentially soft felling measures. It will be important to ensure there is no net loss of roost resource (opportunities) within the Order Limits, and this may require provision of replacement roost features such as bat boxes and other features appropriate to the bat assemblage present.

Pre-commencement Recommendations

- 4.2.15 Prior to any works commencing, any trees which are due to be impacted by the Scheme will require an updated GLTA, including those previously considered to have no suitability (NONE) for roosting bats. This is due to a variety of factors (such as storm damage and disease) which can lead to the creation and loss of PRF's from trees relatively speedily. This will ensure that any change in the suitability of trees for bats will be identified, and risks suitably mitigated, where necessary.

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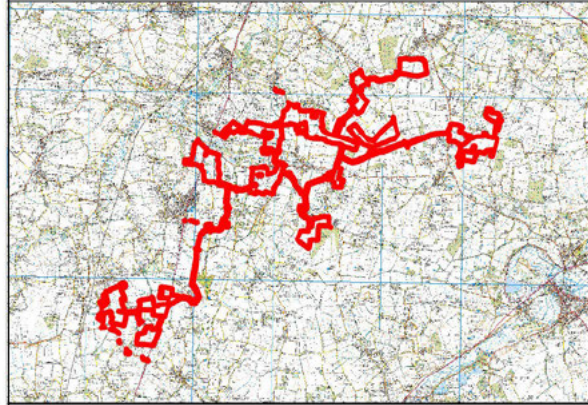
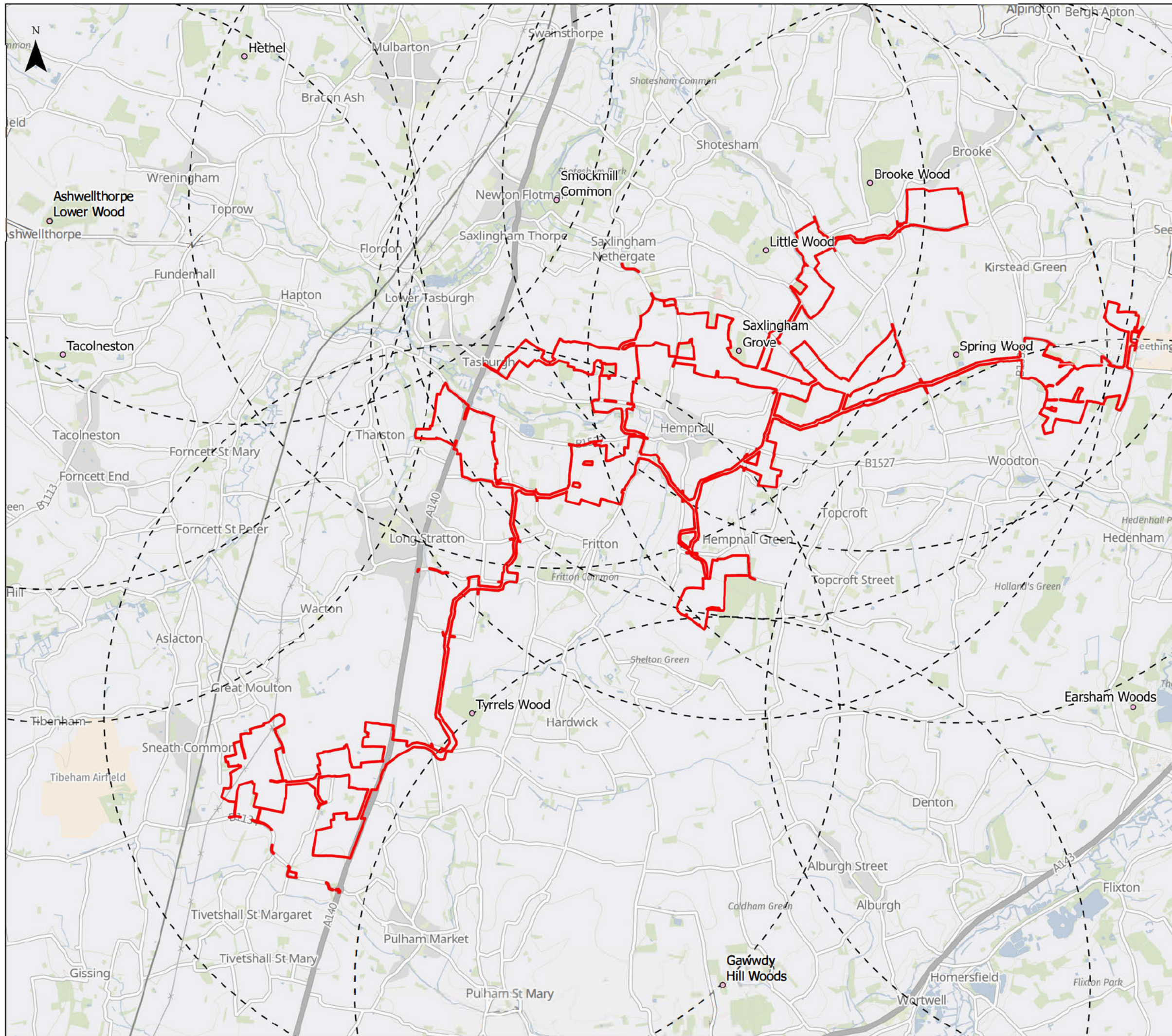
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6 Figures

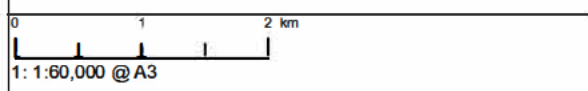
Figure 1: Barbastelle Bat Roost Locations and Associated CSZ's

Figure 2: Ground Level Tree Assessment Results Plan



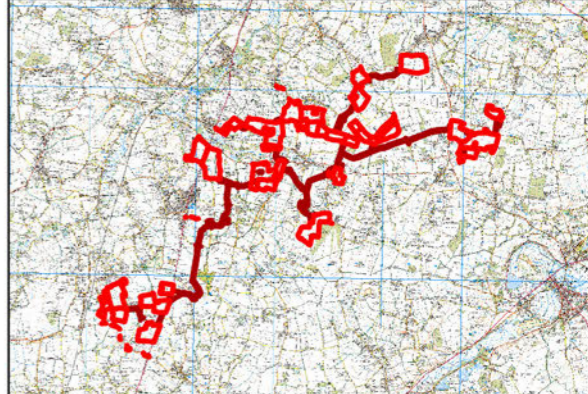
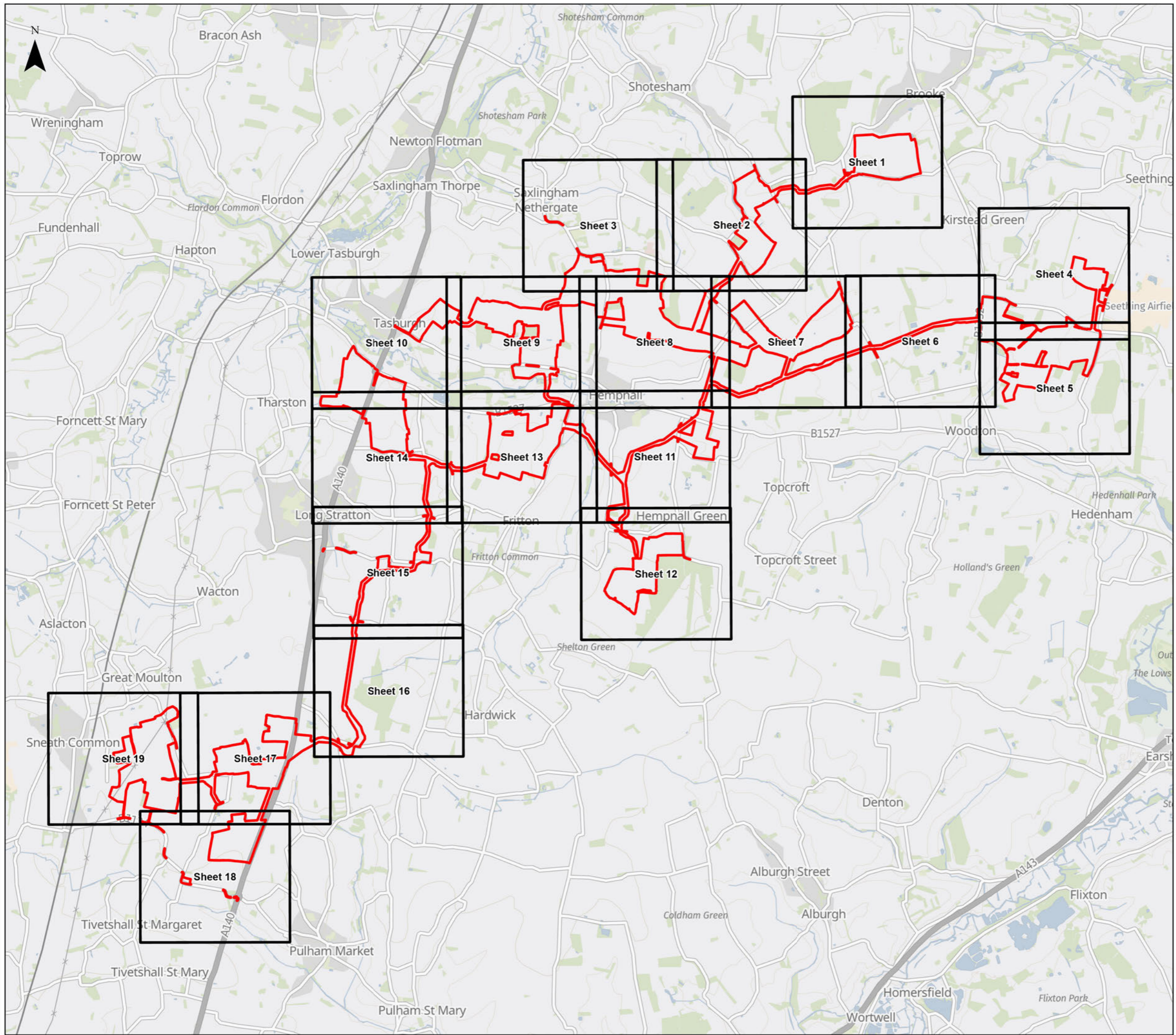
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- Order Limits
 - Barbastelle Bat Roost Location
 - CSZ

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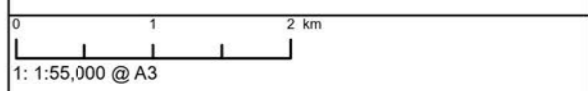
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Figure 1: Barbastelle Bat Roost Locations and Associated CSZ's
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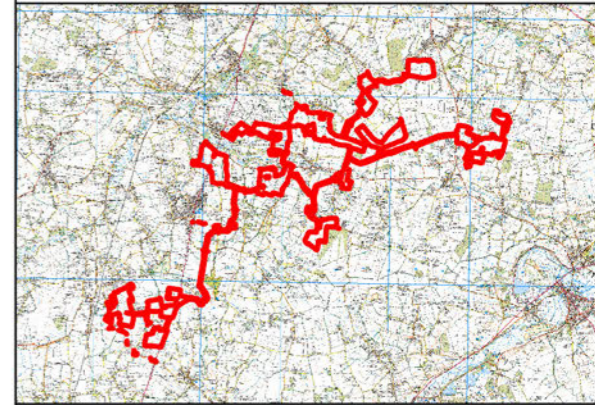
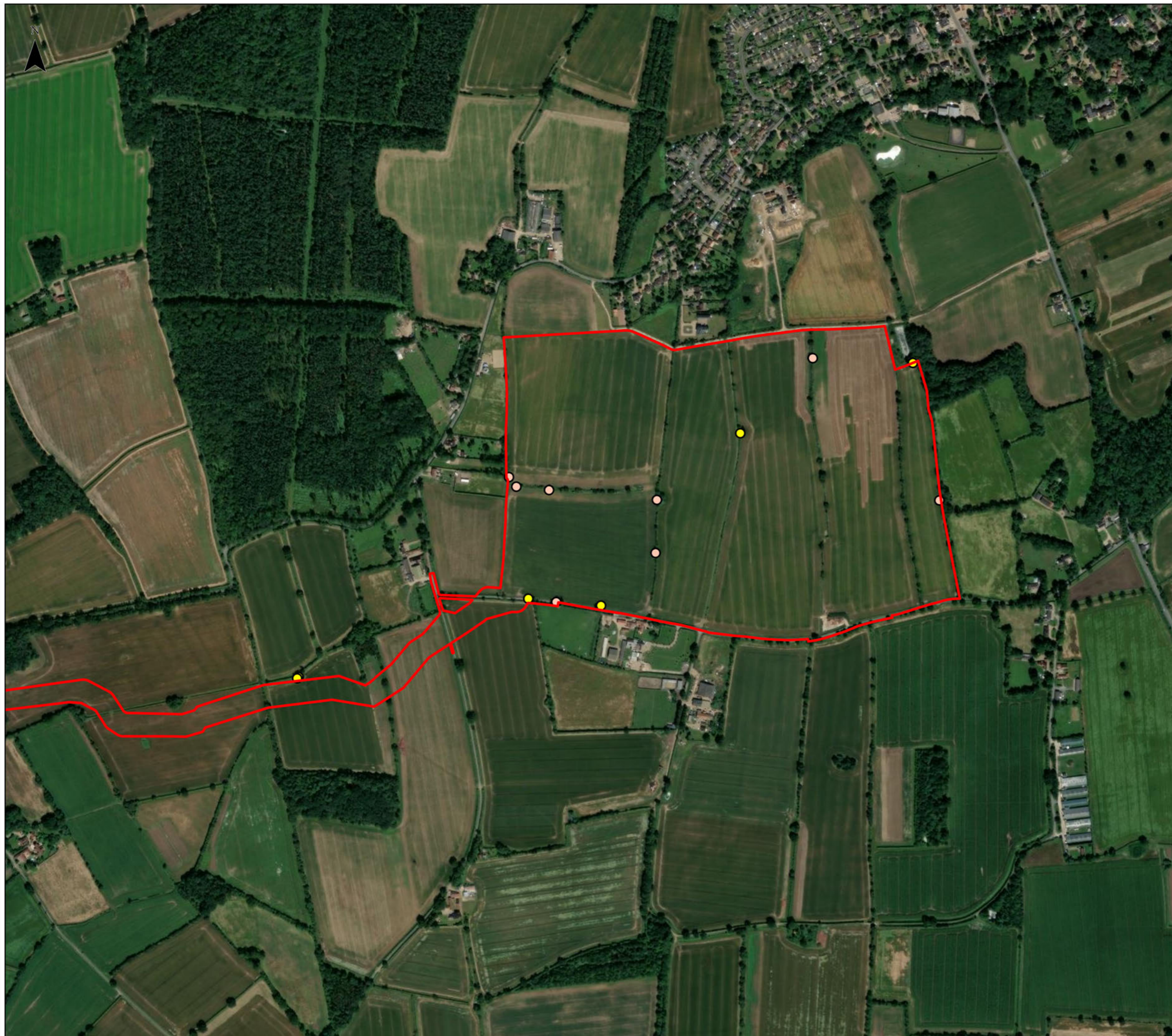
Legend
 Order Limits
 Sheet Index

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Figure 2: Ground Level Tree Assessment Results Overview
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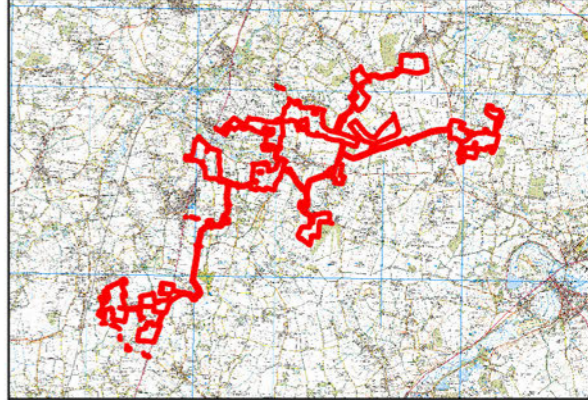
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Figure 2: Ground Level Tree Assessment Results Plan

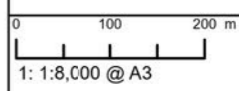
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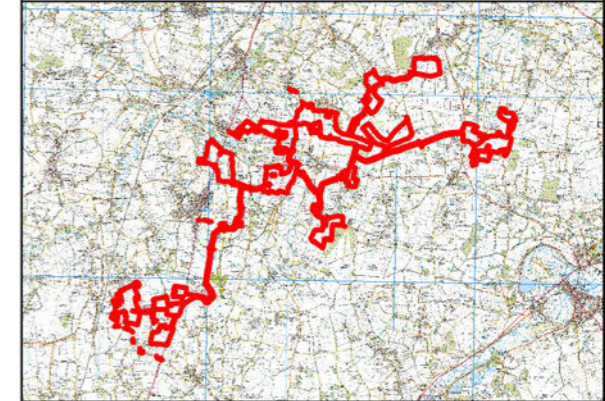
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Figure 2: Ground Level Tree Assessment Results Plan

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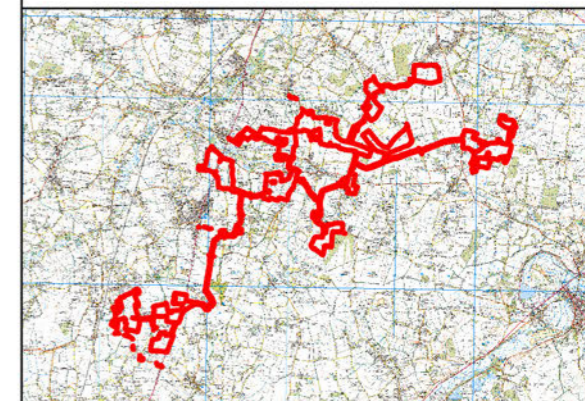
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Figure 2: Ground Level Tree Assessment Results Plan

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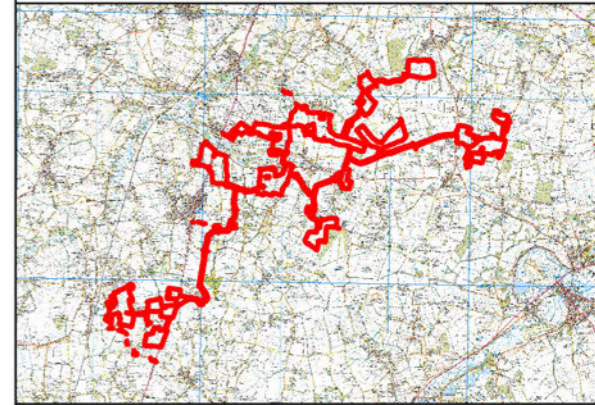
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Figure 2: Ground Level Tree Assessment Results Plan

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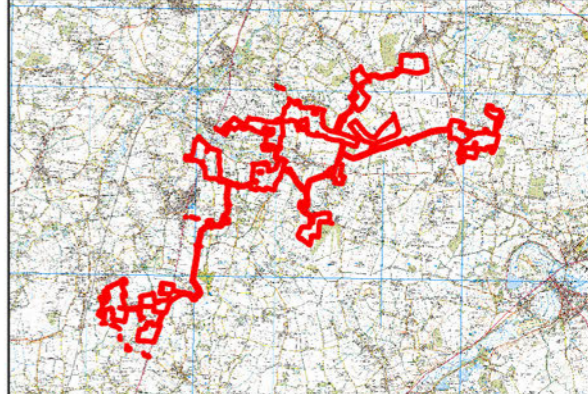
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Figure 2: Ground Level Tree Assessment Results Plan

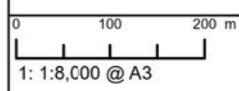
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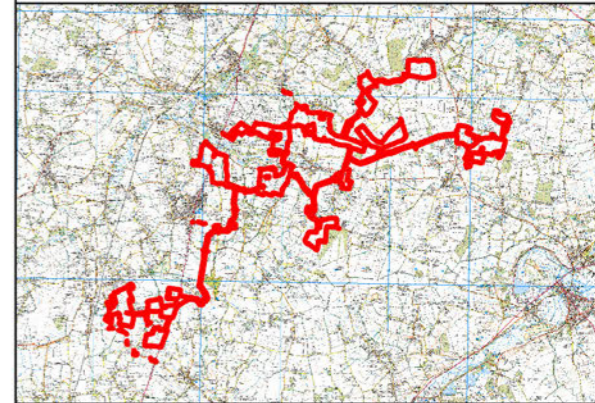
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Figure 2: Ground Level Tree Assessment Results Plan

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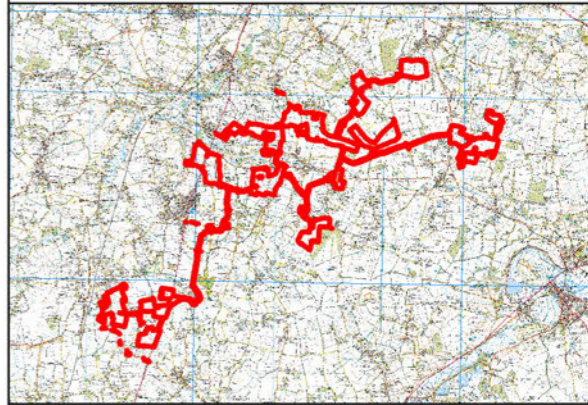
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Figure 2: Ground Level Tree Assessment Results Plan

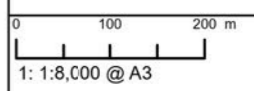
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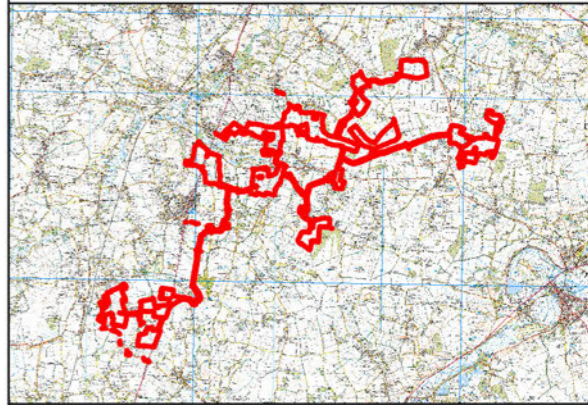
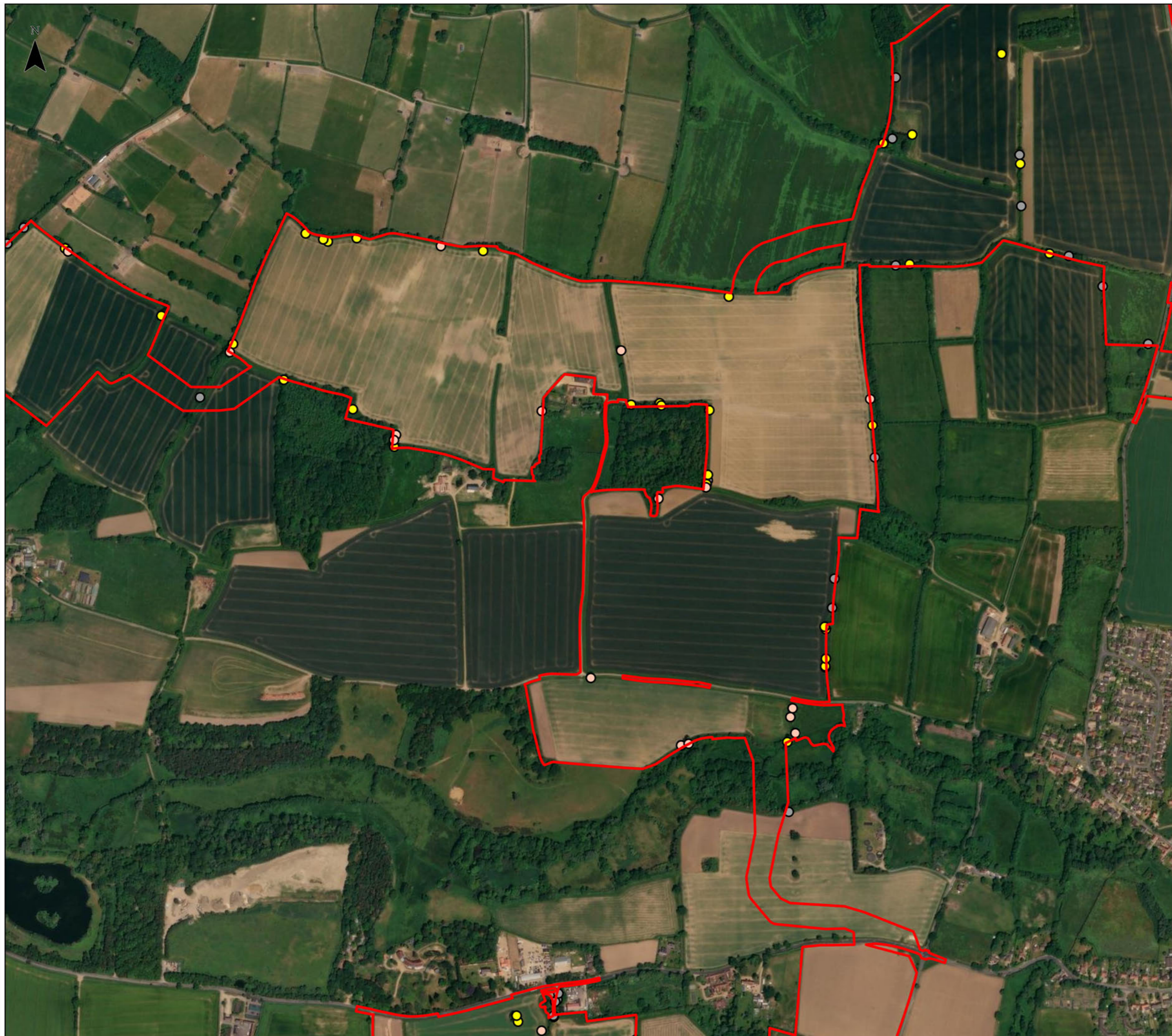
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Figure 2: Ground Level Tree Assessment Results Plan

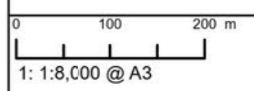
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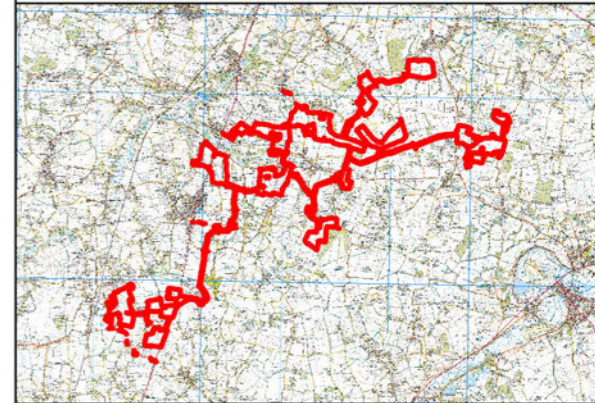
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Figure 2: Ground Level Tree Assessment Results Plan

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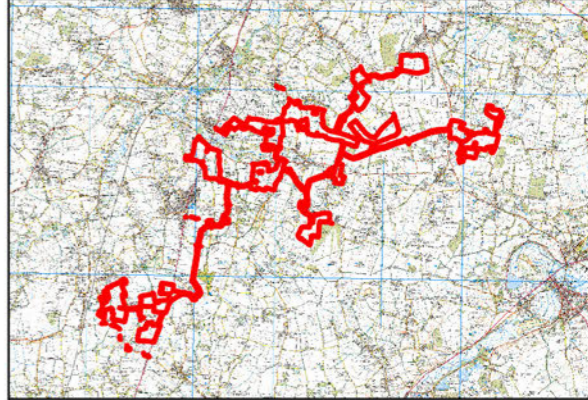
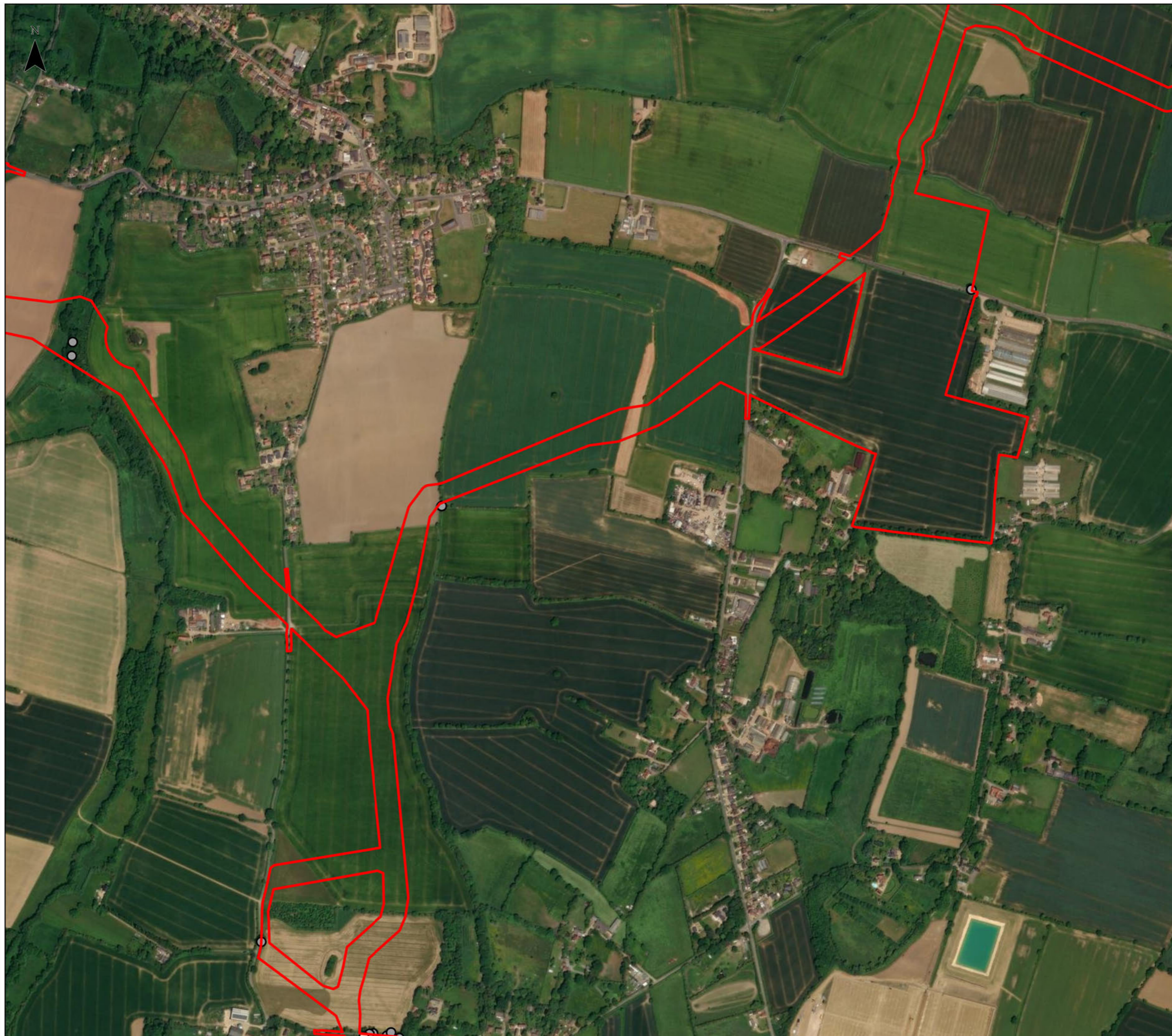
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Figure 2: Ground Level Tree Assessment Results Plan

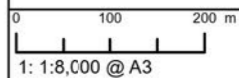
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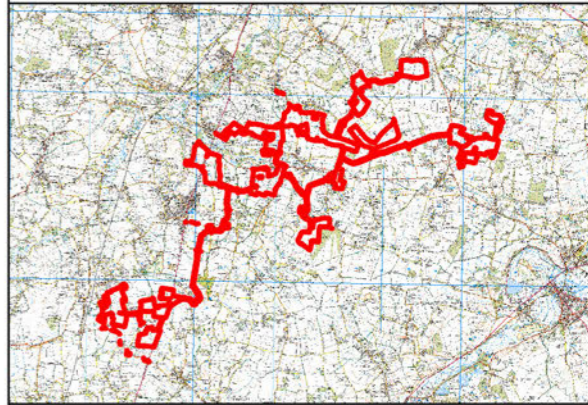
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Figure 2: Ground Level Tree Assessment Results Plan

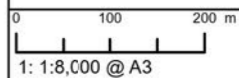
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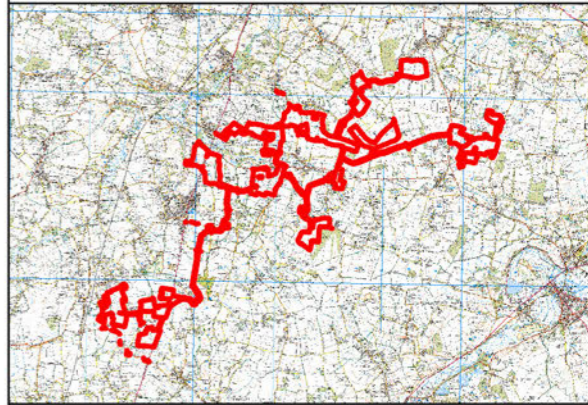
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Figure 2: Ground Level Tree Assessment Results Plan

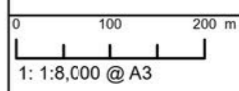
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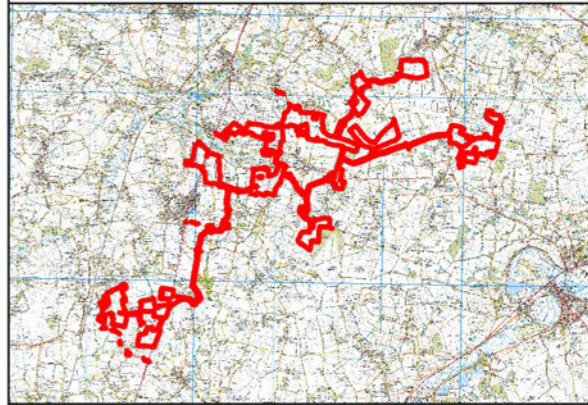
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Figure 2: Ground Level Tree Assessment Results Plan

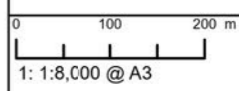
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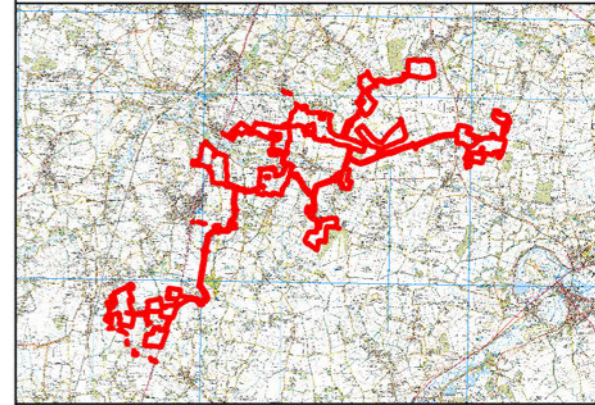
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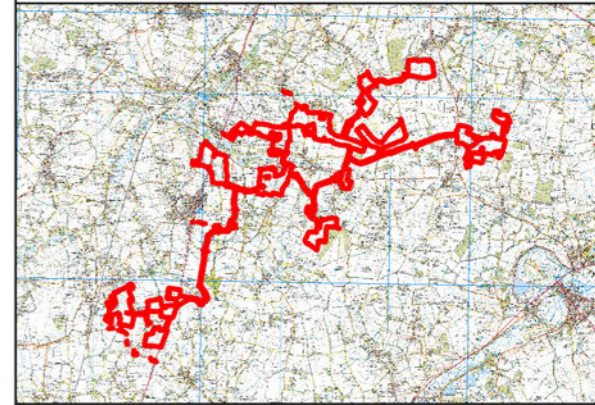
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Figure 2: Ground Level Tree Assessment Results Plan

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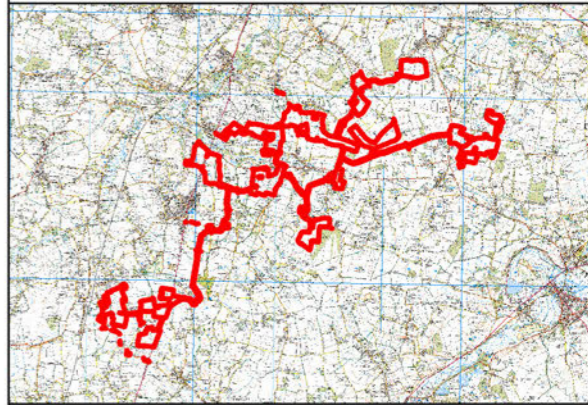
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Figure 2: Ground Level Tree Assessment Results Plan

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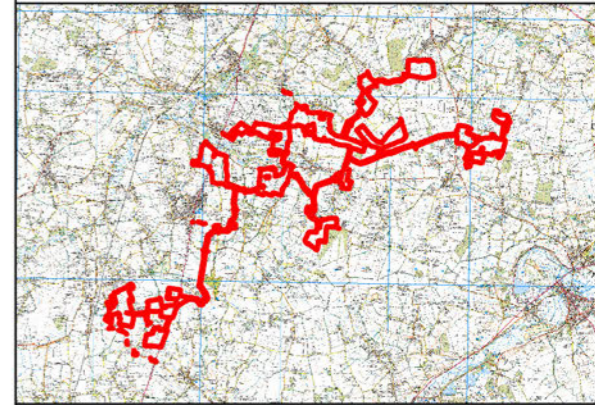
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Figure 2: Ground Level Tree Assessment Results Plan

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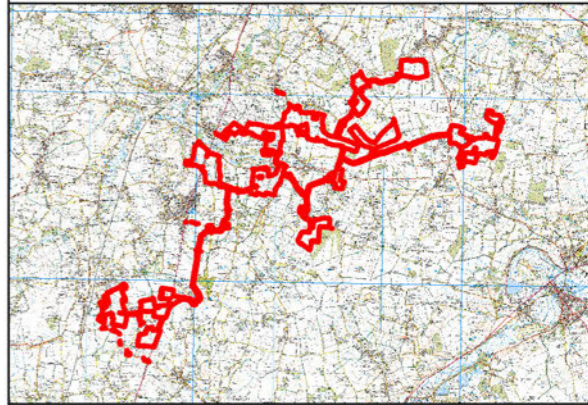
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Figure 2: Ground Level Tree Assessment Results Plan

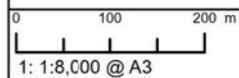
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Figure 2: Ground Level Tree Assessment Results Plan

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Annex 1: Photographed Examples

Photograph 1: 2A 09 (PRF)



Photograph 2: 5A 03 (PRF)



Photograph 3: 5A 31 (FAR)



Photograph 4: 7J 12 (FAR)



Annex 2: Legislation

Important Notice: This section contains details of legislation applicable in England and Wales only (i.e., not including Scotland, the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to represent the current (at the time of writing) situation with respect to the UK's position outside of the EU and to ensure accuracy throughout, this section should not be relied upon as a definitive statement of the law.

Over the past few years, three important bills have been published which are intended to shape how growing pressures on the environment post-Brexit (post-transition period) are tackled. Both the Agriculture Bill and Fisheries Bill gained Royal Assent in November 2020 and are now the Agriculture Act 2020 and Fisheries Act 2020 respectively; and, more recently, the Environment Bill was passed into law in November 2021, becoming the Environment Act 2021. N.B. as environment policy is a devolved matter, most of this Act applies to England only.

A.1 Legislation Afforded to Species

The objective of the EC Habitats Directive⁵ is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by **The Conservation of Habitats and Species Regulations 2017 (as amended)** and the **'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended)**.

Various amendments to the 2017 Regulations in England and Wales have been made through the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. These changes came into effect on the 1 January 2021 following the UK's departure from the EU and the end of the Transition Period. The changes are largely limited to 'operability changes' that will ensure the Regulations can continue to have the same working effect as before.

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CROW) Act (2000).

As well as delivering long-term targets to reduce waste and improve resource efficiency and improve air and water quality targets, the **Environment Act 2021** aims to halt the decline of nature by 2030, mandates Biodiversity Net Gain for developments in England and amends the Wildlife and Countryside Act 1981 (as

⁵ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

amended) to introduce an additional purpose for granting a protected species licence in relation to development which is 'for reasons of overriding public interest'. The Act also introduces the Office for Environmental Protection (OEP), which will be a new public body intended to hold government and public authorities to account, although the government will be able to issue guidance to the OEP on how it enforces policies and legislation.

Some of the key biodiversity elements in the Act that will have a bearing on species protection in the UK include:

- A strengthened biodiversity duty on Local Planning Authorities.
- Biodiversity net gain to ensure developments, including Nationally Significant Infrastructure Projects (NSIP), deliver at least 10% increase in biodiversity;
- Local Nature Recovery Strategies to support a Nature Recovery Network;
- Duty upon Local Authorities to consult on street tree felling;
- Strengthen woodland protection enforcement measures;
- Conservation Covenants;
- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature;
- Introduces the power for the Habitats Regulations to be amended or 'refocused' to 'to deliver creative public policy thinking that delivers results'.

This section does not provide further detail on the Environment Act 2021 as, at the time of writing (November 2021), the Act, in its final form, has not been published and it remains to be seen how and when the various elements will be enacted at a national and local level.

Other legislative Acts affording protection to wildlife and their habitats include:

- Salmon and Freshwater Fisheries Act 1975;
- Deer Act 1991;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996;
- Countryside and Rights of Way (CROW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- The Eels (England and Wales) Regulations 2009; and
- Environment (Wales) Act 2016.

Species and species groups that are protected or otherwise regulated under the aforementioned legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds,

dormouse, invasive species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2017 (as amended), which include smooth snake, sand lizard, great crested newt, natterjack toad, all bat species, otter, dormouse and some plant, invertebrate and fish species, are given below. **These should be read in conjunction with the relevant species sections that follow.**

In the Habitats Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Conservation of Habitats and Species Regulations 2017 (as amended) does not define the act of 'migration' and therefore, as a precaution, it is recommended that short-distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered where relevant.

In order to obtain a mitigation licence for species protected under the Conservation of Habitats and Species Regulations 2017 (as amended), the application must demonstrate that it meets all of the following three 'tests': i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

A.2 Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 43 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats).
- Deliberate disturbance of bat species as:

to impair their ability:

- a. to survive, breed, or reproduce, or to rear or nurture young; or
- b. to hibernate or migrate.
- c. to affect significantly the local distribution or abundance of the species.
- d. Damage or destruction of a breeding site or resting place.
- e. Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) in respect to sub-sections 9 (4) (b) and (c) and 9 (5) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- a. Intentional or reckless disturbance while in their place of shelter (at any level).
- b. Intentional or reckless obstruction of access to any place of shelter or protection.
- c. Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

The appropriate licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Though there is no case law to date, the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost⁶.

A.3 Planning Policy

A.3.1 National Planning Policy Framework

The National Planning Policy Framework (2023) emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species (see Section D below). An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species is also listed as a requirement of planning policy. In determining planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

⁶ Garland and Markham (2008) Is important bat foraging and commuting habitat legally protected? Mammal News, No. 150. The Mammal Society, Southampton.

A.3.2 The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of The Natural Environment and Rural Communities (NERC) Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

A.3.3 Local Plans

The North Norfolk District Council's Core Strategy (2008) is a Local Development Framework (LDF) document which provides the overarching approach for development in North Norfolk. It sets out a long-term spatial vision, objectives and policies to guide public and private sector investment up to 2021. Key environmental policies are summarised below.

Policy SS 4: Environment

All development proposals will contribute to the delivery of sustainable development, ensure protection and enhancement of natural and built environmental assets and geodiversity. Opportunities to improve river water quality and minimise air, land and water pollution will be taken where possible. Open spaces and areas of biodiversity interest will be protected from harm, and the restoration, enhancement, expansion and linking of these areas to create green networks will be encouraged through a variety of measures such as:

- Maximising opportunities for creation of new green infrastructure and networks in sites allocated for development.
- creating green networks to link urban areas to the countryside; the designation of Local Nature Reserves and County Wildlife Sites.
- appropriate management of valuable areas, such as County Wildlife Sites.
- minimising the fragmentation of habitats, creation of new habitats and connection of existing areas to create an ecological network as identified in the North Norfolk ecological network report.
- progress towards Biodiversity Action Plan targets.
- and conservation and enhancement of Sites of Special Scientific Interest (SSSI) in accordance with the Wildlife and Countryside Act

New development will incorporate open space and high-quality landscaping to provide attractive, beneficial environments for occupants and wildlife and contribute to a network of green spaces.

The Norfolk Coast AONB Management Plan provides guidance for the conservation and enhancement of the areas special qualities and should be taken into consideration in all development proposals that could affect the area. National policy advises that major developments should not take place in nationally designated areas such as AONBs except in exceptional circumstances.

Policy EN 1: Norfolk Coast Area of Outstanding Natural Beauty and The Broads

The impact of individual proposals, and their cumulative effect, on the Norfolk Coast AONB, The Broads, and their settings, will be carefully assessed. Development will be permitted where it:

- Is appropriate to the economic, social and environmental well-being of the area or is desirable for the understanding and enjoyment of the area.
- Does not detract from the special qualities of the Norfolk Coast AONB or The Broads.
- Seeks to facilitate delivery of the Norfolk Coast AONB management plan objectives.

Proposals that have an adverse effect will not be permitted unless it can be demonstrated that they cannot be located on alternative sites that would cause less harm and the benefits of the development clearly outweigh any adverse impacts. Development proposals that would be significantly detrimental to the special qualities of the Norfolk Coast AONB or The Broads and their settings will not be permitted.

Policy EN 9: Biodiversity & Geology

All development proposals should:

- Protect the biodiversity value of land and buildings and minimise fragmentation of habitats.
- Maximise opportunities for restoration, enhancement and connection of natural habitats.
- Incorporate beneficial biodiversity conservation features where appropriate.
- Development proposals that would cause a direct or indirect adverse effect to nationally designated sites or other designated areas or protected species will not be permitted unless.
- They cannot be located on alternative sites that would cause less or no harm.
- The benefits of the development clearly outweigh the impacts on the features of the site and the wider network of natural habitats.
- Prevention, mitigation and compensation measures are provided.

Development proposals that would be significantly detrimental to the nature conservation interests of nationally designated sites will not be permitted. Development proposals where the principal objective is to conserve or enhance biodiversity or geodiversity interests will be supported in principle. Where there is reason to suspect the presence of protected species applications should be

accompanied by a survey assessing their presence and, if present, the proposal must be sensitive to, and make provision for, their needs.

A.4 Biodiversity Action Plans (BAPs)

Since the publication of the UK BAP in 1994, new strategies and frameworks have resulted in the development of biodiversity issues and changes in the terminology used to describe these habitats and species in England. This has been brought about through the replacement of the previous England Biodiversity Strategy with *Biodiversity 2020: A Strategy For England's Wildlife and Ecosystem Services* (2011) and the replacement of the UK BAP itself with the *UK Post-2010 Biodiversity Framework* (2012). All previous UK BAP species and habitats are still of material consideration in the planning process but are now referred to as Habitats and Species of Principal Importance (as described under the NERC Act 2006 above).

The distribution of BAP/priority habitats has been used to identify Biodiversity Opportunity Areas at a regional scale through Biodiversity Strategies/Partnerships. They represent a strategic landscape scale approach to habitat creation, restoration or expansion. They represent regional priority areas of opportunity to restore and create key habitats. They are therefore a spatial representation of targets for Habitats of Principal Importance and are areas of opportunity, not constraint.