

**EAST NORTHANTS RESOURCE MANAGEMENT  
FACILITY WESTERN EXTENSION ECOLOGICAL  
BASELINE**

**2021 SUPPLEMENTARY SURVEY REPORT**

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# EAST NORTHANTS RESOURCE MANAGEMENT FACILITY WESTERN EXTENSION ECOLOGICAL BASELINE - 2021 SUPPLEMENTARY SURVEY REPORT

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## 1 INTRODUCTION

- 1.1 Fieldwork to provide the baseline ecological conditions of the East Northants Resource Management Facility (ENRMF), including both the existing ENRMF and the proposed western extension (hereafter referred to as the 'Site'), commenced in 2018 and was largely completed and reported by June 2021 in Technical Appendix 1 to the Ecological Impact Assessment (EIA) (ESL, 2021) (PINS document reference 5.4.13.1), however, for reptiles, bats and dormice, the standard methods require the surveys continue throughout the active season, into the autumn.
- 1.2 This supplementary report presents the later results for these species and discusses the importance of the new findings. English names are used for species throughout this text with the scientific names given in the EIA (ESL, 2021).

## 2 REPTILES

### 2.1 METHODS

- 2.1.1 The 2021 surveys used the same methods as in previous years (ESL, 2021) but were increased in intensity from 16 surveys to 20, with greater emphasis both in tin placement and transect walking given to locating adders. Thus, on 24 February and 15 March 2021, prior to the placement of the Artificial Cover Objects (ACOs), experienced ecologists, specialising in reptile surveys, walked transects of the survey area in suitable weather conditions to carry out direct observation searches specifically for adders.
- 2.1.2 Two-hundred and seventy-one ACOs were then placed in areas of suitable reptile habitat (Figure 1) and each ACO was inspected 18 times in suitable weather conditions. In addition, direct observation of areas of suitable habitat was again carried out on every visit to locate any reptiles basking or foraging in open areas.

### 2.2 RESULTS

- 2.2.1 Visits 1-12, covering the period January-June 2021, were reported in the EIA (ESL, 2021). For completeness, these results are repeated here in Table 1, together with the results of visits 13-20, covering the period July-September 2021.
- 2.2.2 As with the 2019 and 2020 surveys, both adult and immature slow worms and common lizards were recorded along the field margins of the eastern boundary of The Assarts and the western boundary of Collyweston Great Wood. Peak counts for a single visit of 27 common lizards and

23 slow worms were recorded for all areas on separate visits and both were recorded on most visits.

- 2.2.3 One individual immature grass snake was recorded on visit 6 on the ditch bank on the south-eastern boundary of The Assarts and a second on visit 17 on the edge of Fineshade Woods, in the southwest of the Site.
- 2.2.4 The additional visits were justified by the finding of a single immature adder in the same location (Figure 1) on two consecutive occasions, visits 13 and 14, during the July 2021 surveys. Small numbers of adders are known to be present in both Fineshade Woods and Collyweston Great Wood and single adders have been found in some years, including a gravid female, on the northern edges of the existing ENRMF. The recording of an immature adder on Site and within dispersal distance of the existing ENRMF records, confirms this small population is still present.

**Table 2.1. Date, weather conditions, timings and results of surveys for 2021.**

| Visit No. | Date of visit | Times         | Weather Conditions                     | Results   |
|-----------|---------------|---------------|--|---|
| 1         | 24/02/21      | 11:00 - 16:00 | Part sun, dry, F2 S wind, 17°C         | No reptiles recorded  |
| 2         | 15/03/21      | 11:15 - 15:05 | Part sun, dry, wind F1-2, 9-10°C       | Common lizard - 1 adult male  |
| 3         | 25/03/21      | 11:00 - 14:00 | Broken cloud, dry, F2 SW wind, 11-13°C | No reptiles recorded  |
| 4         | 09/04/21      | 12:15 - 15:00 | Hazy cloud, wind F1, 10-12°C           | No reptiles recorded  |
| 5         | 15/04/21      | 16:00 - 18:00 | Part sun, 10°C, F2 wind                | Slow worm – 1 adult female  |
| 6         | 23/04/21      | 11:30 - 15:30 | Clear, 14-18°C, dry, F1 wind           | Common lizard – 3 adult males, 2 adult females<br>Slow worm – 2 adult males, 1 adult female, 2 immatures<br>Grass snake – 1 immature                    |
| 7         | 28/04/21      | 15:30 - 18:30 | Part sun, 15°C, dry, F1 NE wind        | Common lizard – 5 undetermined<br>Slow worm – 2 adult males, 2 adult females  |
| 8         | 14/05/21      | 11:30 - 14:45 | Broken hazy cloud, 14°C, dry, F0 wind  | Slow worm – 2 adult males, 3 adult females, 1 immature  |
| 9         | 24/05/21      | 11:00 - 14:45 | Sunny spells, 13°C, dry F2 SW wind     | Common lizard – 22 undetermined<br>Slow worm – 15 undetermined  |
| 10        | 27/05/21      | 13:45 - 15:45 | Broken cloud, 16-18°C, dry, F1 wind    | Common lizard – 1 adult male, 7 adult females, 5 immatures, 14 undetermined<br>Slow worm – 5 adult males, 11 adult females, 3 immatures, 2 undetermined |
| 11        | 03/06/21      | 10:00 - 11:30 | Sunny spells, 18-20°C, dry             | Common lizard – 1 adult female, 2 immatures, 5 undetermined   |

| Visit No. | Date of visit | Times         | Weather Conditions                 | Results   |
|-----------|---------------|---------------|------------------------------------|---|
|           |               |               |                                    | Slow worm - 1 adult male, 8 adult females, 3 immatures, 11 undetermined   |
| 12        | 23/06/21      | 13:30 – 16:00 | Part sun, 20°C, dry, F1 SW wind    | Slow worm – 1 adult male, 2 immatures, 1 undetermined.  |
| 13        | 08/07/21      | 11:30 - 14:30 | Cloud 6/8, 19-20°C, F0 wind        | Adder - 1 immature<br>Common lizard - 2 adult males, 3 adult females, 3 immatures<br>Slow worm - 8 adult males, 11 adult females, 4 immatures |
| 14        | 26/07/21      | 12:00 - 15:00 | Part sun, 7/8 cloud, dry, 25°C     | Adder - 1 immature<br>Common lizard - 2 adult males, 2 adult females<br>Slow worm - 15 undetermined   |
| 15        | 13/08/21      | 13:00 - 15:00 | Broken cloud 4/8, F2 SW wind, 20°C | Common lizard - 3 adult males, 2 adult females<br>Slow worm - 4 adult males, 14 adult females   |
| 16        | 23/08/21      | 12:15 - 15:30 | 2/8 cloud, F1 NW wind, 22°C        | Common lizard - 4 adult males, 1 adult female<br>Slow worm - 2 adult males, 5 adult females, 1 immature                                       |
| 17        | 31/08/21      | 14:00 - 15:20 | 8/8 cloud, F2 wind 17°C            | Slow worm - 2 adult males, 3 adult females<br>Grass snake - 1 immature  |
| 18        | 08/09/21      | 10:30 - 16:00 | Sunny, F4 wind, 22-29°C            | Common lizard - 1 adult male  |
| 19        | 16/09/21      | 11:15 - 13:00 | Cloud 6/8, still, 18°C             | Common lizard - 2 adult females, 1 immature<br>Slow worm - 1 adult female, 1 immature   |
| 20        | 29/09/21      | 11:00 - 15:00 | 4/8 cloud, F1 SW wind, 14°C        | Common lizard - 3 adult males<br>Slow worm - 1 adult male   |

## 2.3 ASSESSMENT

2.3.1 For all species, the number and distribution of records were similar to results obtained during the 2019 and 2020 surveys, taking into account the increase in sampling effort in 2021. The most productive area for common lizard and slow worm sightings continued to be the grassland strip that forms the western boundary adjacent to Collyweston Great Wood and the eastern boundary of the Site. Sporadic grass snake records were once again attributed to the boundary between the southwest of the Site and Fineshade Woods/The Assarts, where ground conditions are often wetter and more favourable for grass snakes throughout the year.

2.3.2 Neither of the early season wider area adder searches found evidence indicating nearby hibernation sites for this species, nor were any records obtained during the peak time of year when nearby adders would be expected to be dispersing after mating, being April/May. One sexually-immature individual was recorded during July, suggesting a brief establishment of foraging territory.

- 2.3.3 The significance of the Site for all species of reptile remains as understood from the 2019 and 2020 surveys (ESL, 2021) and enhancement measures such as the establishment of grassy corridors during works and the [REDACTED] provide significant biodiversity gain for all these species.

### 3 BATS

#### 3.1 METHODS

##### Activity surveys – dusk/dawn emergence and re-entry surveys.

- 3.1.1 As detailed in the EIA (ESL, 2021) there are no buildings or structures within the application area and the Preliminary Roost Assessment (PRA) of all trees on the Site highlighted one tree (T1) as having moderate roost potential with Potential Roost Features (PRF) comprising lateral fissures along the main boughs (Hundt, 2012, Collins, 2016).
- 3.1.2 Targeted dusk and dawn emergence and re-entry watches were undertaken in June, July and September 2021 and included T1 (Figure 2) and the adjacent woodland edge to the northeast and northwest of the Site, focussing on trees with high suitability for use by roosting bats. These trees have one or more PRFs that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially, for longer periods.
- 3.1.3 The surveys were undertaken by Dave Hughes, Natural England bat survey Class Licence Number 2015-14463-CLS-CLS (CL20), Grant Berky, Natural England bat survey Class Licence Number 2015-12276-CLS-CLS (CL18), Emily Cook, Natural England bat survey Class Licence Number 2015-10574-CLS-CLS (CL18) and two assistants. Surveyors were equipped with a combination of Anabat Walkabout detectors, Wildlife Acoustics Echo Meter 3 (EM3) and Gen-2 night-vision equipment and kept in contact with 2-way radios. The surveys were carried out with reference to the Bat Conservation Trust guidelines (Collins, 2016).

**Table 3.1. Date, weather conditions and timings of surveys for 2021.**

| Visit No. | Date of visit | Times               | Weather Conditions                   |
|-----------|---------------|---------------------|--------------------------------------|
| 1         | 30/06/2021    | 21:10hrs - 23:10hrs | 18-14°C, still, dry, 6/8 cloud cover |
| 2         | 22/07/2021    | 03:00hrs - 05:10hrs | 15°C, dry, still, 2/8 cloud cover    |
| 3         | 29/07/2021    | 03:15hrs - 05:15hrs | 12°C, gentle SW breeze, clear        |
| 4         | 20/09/2021    | 18:45hrs - 20:30hrs | 17°C, still, dry, 1/8 cloud cover    |

#### 3.2 RESULTS

- 3.2.1 On 30 June 2021, a dusk emergence-watch by four surveyors covered trees along the northeast and western adjacent woodland edge habitats, commencing at 21:10hrs and finishing at 23:10hrs (sunset: 21:29hrs). One surveyor also traversed the woodland rides closest to the

Site in Collyweston Great Wood. The first passes were not recorded until 22:05, with brief commuting and foraging passes recorded for soprano pipistrelle and common pipistrelle along the boundaries of the Site and [REDACTED] Collyweston Great Wood recorded occasional barbastelle and *Myotis* sp. commuting passes along the rides as well as soprano- and common-pipistrelle foraging and commuting passes. No bats were recorded emerging from the PRFs associated with the woodland edge trees.

- 3.2.2 Dawn re-entry watches were carried out by four surveyors on 22 July 2021 and covered T1, the adjacent woodland edge trees with high roost suitability along the northeast and northwest boundaries and the woodland rides adjacent to the northeast boundary. The survey commenced at 03:00hrs, finishing at 05:10hrs (sunrise 05:05hrs). Only brief commuting-passes by *Myotis* sp. were recorded past T1. Occasional commuting-passes by brown long-eared bat, common pipistrelle, soprano pipistrelle and noctule were recorded along the northwest edge of the Site. No registrations by commuting or foraging bats were recorded along the northeast edge of the Site, with only distant, high-overhead passes by noctule noted. Brief foraging and commuting passes by soprano pipistrelle, noctule, barbastelle, *Myotis* sp. and common pipistrelle were recorded along the rides in Collyweston Great Wood. No roost sites were identified associated in the trees with PRFs.
- 3.2.3 On 29 July 2021 dawn re-entry watches were undertaken on T1 and the trees with PRFs along the northeast adjacent woodland edge habitats, commencing at 03:15hrs and finishing at 05:15hrs (sunrise: 05:15). A surveyor was also located along the woodland rides northeast of the Site. Sporadic and low numbers of soprano pipistrelle passes were recorded along the north-eastern edge of the Site, with only very occasional *Myotis* sp., soprano pipistrelle and common pipistrelle passes and a single barbastelle pass recorded along the woodland rides. No roost sites were identified associated with the trees with PRFs.
- 3.2.4 Dusk emergence watches on T1 and woodland edge trees with high roost suitability adjacent to the north-eastern and north-western boundaries were carried out by four surveyors on 20 September 2021, commencing at 18:45hrs and finishing at 20:30hrs (sunset: 19:04hrs). The weather conditions were suitable for the surveys. During the emergence survey, brief commuting and foraging passes by common pipistrelle, soprano pipistrelle and *Myotis* sp. over the adjacent woodland canopy and along the edges of the Site were recorded, with faint, distant passes by noctule off-site also noted. Occasional social calls by soprano pipistrelle and common pipistrelle were also recorded along the northeast and northwest Site boundaries. No bats were recorded emerging from the PRFs associated with the trees.

### 3.3 ASSESSMENT

- 3.3.1 Due to the transient nature of tree roost sites, the possibility remains of bats utilising PRFs even if emergence and/or re-entry surveys do not identify active roost sites. This should be considered and covered by sufficient surveys and incorporated into mitigation strategies and precautionary working methods. Impacts to trees with PRFs should be avoided where possible.



- 3.3.2 The species assemblage recorded during the dusk and dawn emergence and re-entry surveys replicated the species recorded during the transect and acoustic surveys in 2020 and 2021 with only Leisler's and Nathusius' [REDACTED] 2021 surveys.
- 3.3.3 As discussed in the EIA (ESL, 2021) all bats are strictly protected under UK legislation. Barbastelle bat, soprano pipistrelle, noctule and brown long-eared bats are also listed as Priority Species in the Northamptonshire Biodiversity Action Plan. Barbastelle bat and brown long-eared bat are primary targets for the Back from the Brink project in Fineshade Woods, whilst noctule and soprano pipistrelle are secondary targets. Due to its high statutory protection, the bat assemblage using the Site is considered an Important Ecological Feature within the zone of influence, however, given their mobility and the fact that most species are foraging and commuting along the woodland margins and along rides within the adjacent woodlands, it is considered likely they will be generally resilient to any effects of the development, provided additional surveys are undertaken as required and best practice mitigation advice relating to artificial lighting, roost and habitat retention and creation is adhered to.

## **4 DORMICE**

### **4.1 METHODS**

- 4.1.1 Suitable habitat for this species is very restricted on the Site so this was targeted, together with some selected areas in adjacent land as per the 2020 surveys. Additionally, the western edge of the Site with The Assarts was targeted. Surveys for the presence/presumed absence of dormice were carried out using Natural England standing advice (Natural England, 2015). In March 2021, 86 dormouse tubes were placed in these limited habitats around the proposed western extension and were checked monthly from April to September 2021 for the presence of dormice or their typical nests.

### **4.2 RESULTS**

- 4.2.1 No dormice (or their activity signs) have been found on or close to the Site during any of the surveys.

### **4.3 ASSESSMENT**

- 4.3.1 The results obtained are consistent with previous years and therefore, dormice are currently still not strictly considered an ecologically important feature of the Site.
- 4.3.2 Due, however, to their presence in Fineshade Woods to the west and Bedford Purlieu over to the east, they are considered an important feature within the Back from the Brink project 'Roots of Rockingham'. The planned post-works restoration of the Site will target their requirements

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in an attempt to attract them into Collyweston Great Wood and perhaps eventually to Easton Hornstocks to join with the Bedford Purlieus population. Dormice are therefore considered an Important Ecological Feature [REDACTED] the Site.

## 5 CONCLUSIONS

- 5.1 The additional work reported here has added new information or confirmed earlier surveys on the Site and adjacent land and thus, completed the ecological baseline, however, this additional information does not change any of the conclusions based on the earlier surveys.

## 6 REFERENCES

Collins J. (ed) 2016. Bat Surveys for Professional Ecologists. Good Practice Guidelines. 3rd Edition. The Bat Conservation Trust.

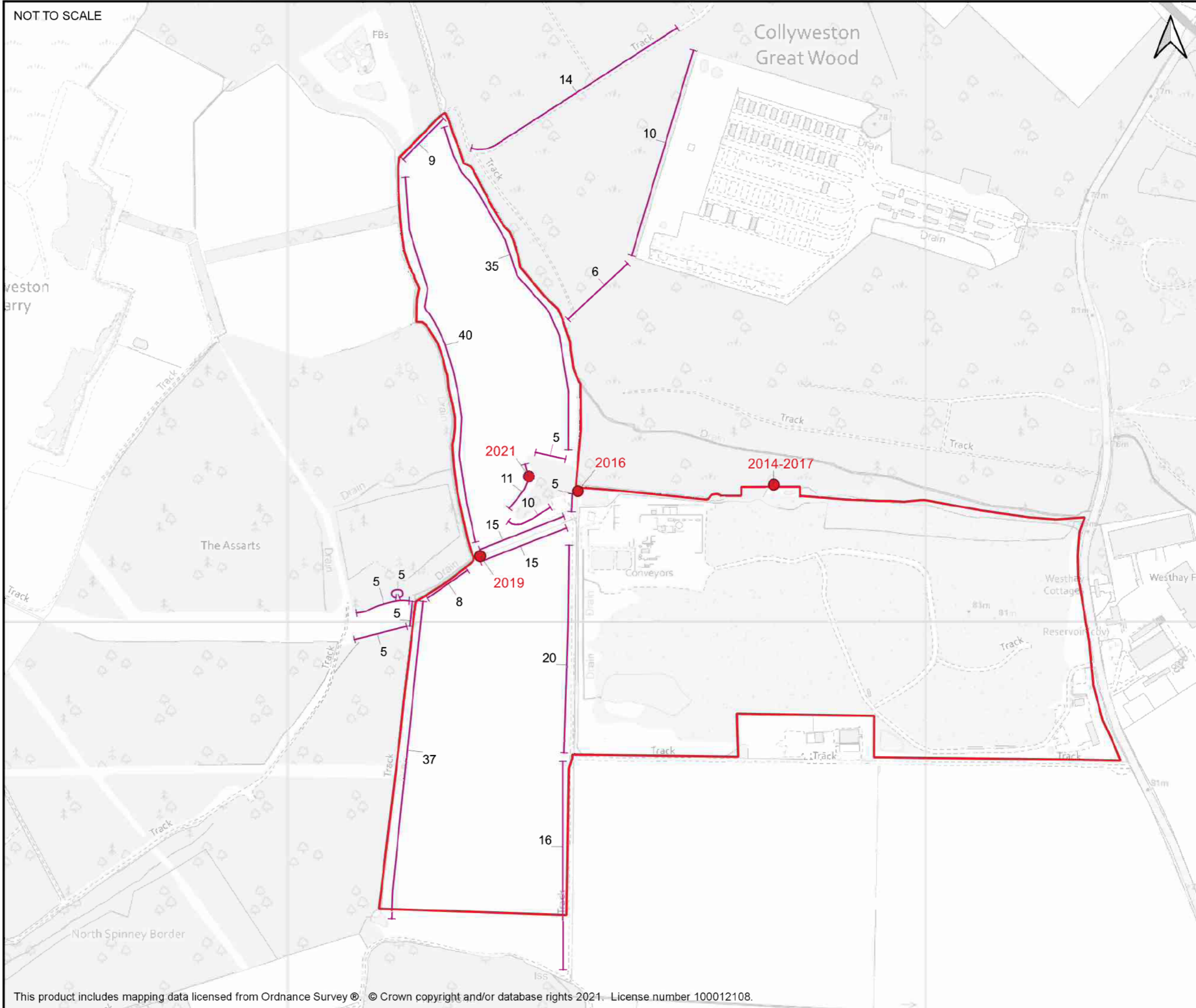
Ecological Services (ESL) Ltd. 2021. *East Northants Resource Management Facility Proposed Western Extension Ecological Baseline, Technical Appendix 1*. Unpublished document supplied to Augean PLC.

Hundt L. 2012. Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust.

Natural England 2015. Standing advice for local planning authorities to assess the impacts of development on hazel dormice. <https://www.gov.uk/guidance/hazel-or-common-dormice-surveys-and-mitigation-for-development-projects>.

**KEY**

- Site boundary
- Adder record (ESL sighting)
- Artificial reptile refugia (label shows number of ACOs used)



SITE NAME:  
**ENRMF Western Extension.**

DRAWING TITLE:  
**Artificial reptile refugia transects  
2021.**

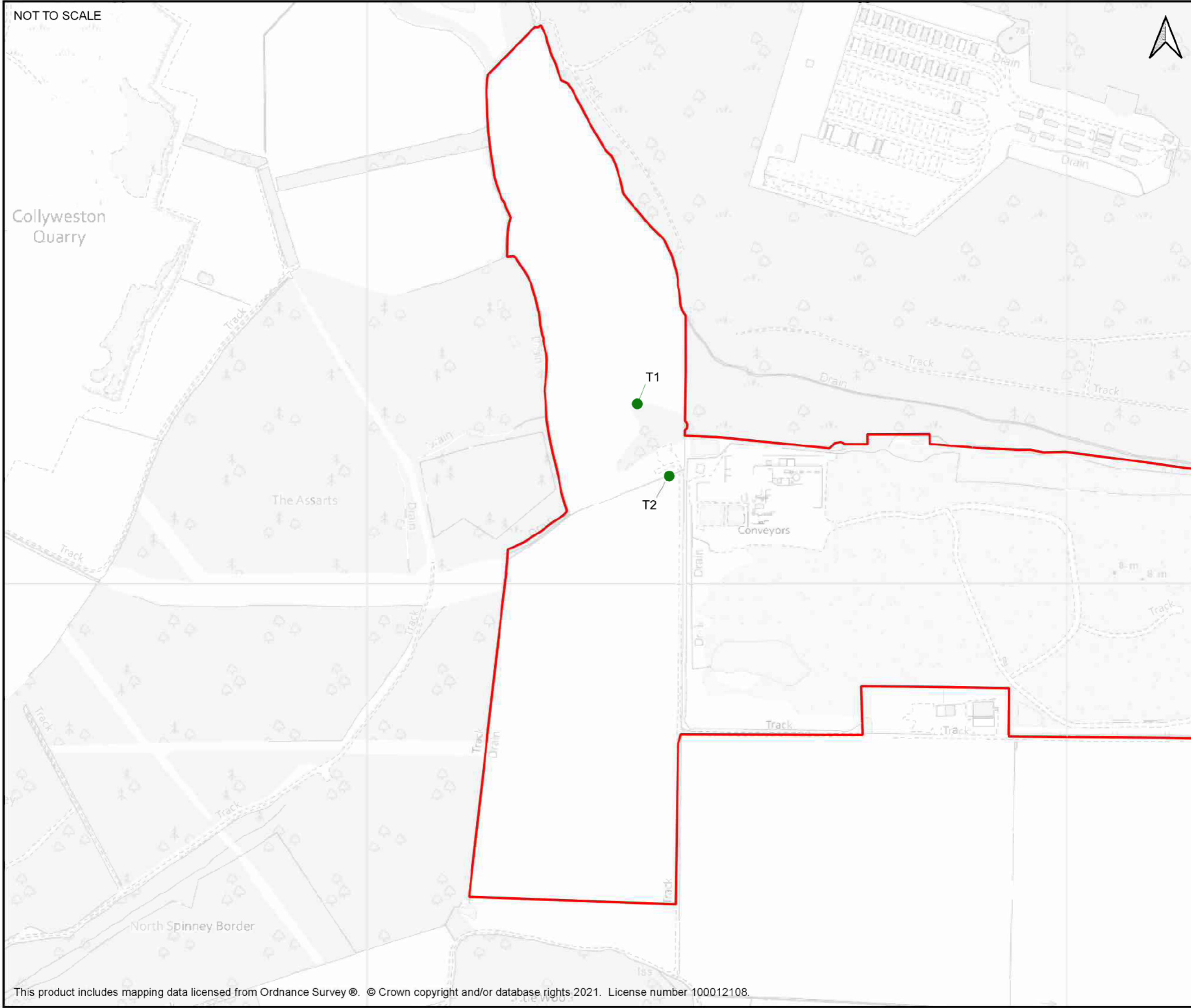
**Figure 1**  
Dwg no.: MJCA118-L049-036 Date: Oct 2021



**KEY**

— Site boundary

● Tree



NOT TO SCALE

Collyweston Quarry

The Assarts

Conveyors

North Spinney Border

SITE NAME:  
**ENRMF Western Extension.**

DRAWING TITLE:  
**Preliminary Roost Assessment.**

**Figure 2**  
Dwg no.: 118-L049-037 Date: Oct 2021

