Green & Blue Ecology

Proposed Continued Use and Lateral Extension of an Existing Quarry at Kilree, Bennettsbridge, Co. Kilkenny

Bat Survey and Evaluation Report

July 2025

Bennettsbridge Limestone Ltd

Reference: QC-24.010 v1.0

REVISION HISTORY

Date	Version	Issued To	Comments
July 2025	QC-24.010 ver 1.0	Quarry Consulting on behalf of Bennettsbridge Limestone	Draft report issued to client for review and comment.

CONTRACT

This document has been prepared by Green & Blue Ecology for Quarry Consulting acting on behalf of Bennettsbridges Limestone to provide information of a bat survey to inform the proposed continuation of use and extension of the existing quarry at Kilree, Bennettsbridge, Co. Kilkenny.

Prepared by: 

Steve Judge BSc(Hons), MIEEM
Principal Ecologist
Green & Blue Ecology

Date: July 2025

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1. INTRODUCTION

1.1. Background

This report presents the findings of a bat survey undertaken at the site of the proposed lateral extension of an existing limestone quarry at Kilree, Sheastown, Bennettsbridge, Co. Kilkenny.

It has been prepared by Green & Blue Ecology on behalf of Bennettsbridge Limestone to inform the Ecological Impact Assessment (EcIA) and Environmental Impact Assessment (EIA) process as part of the planning submission for the proposed continuation of use and lateral extension of the existing limestone quarry at Kilree.

1.2. Legislation Context

All bat species are listed on Annex II and IV of European Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) and a fully protected in Ireland under the Wildlife Act 1976 (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) making it an offence to:

- deliberately capture or kill a bat;
- deliberately disturb any individual or group of bats particularly during the period of breeding, rearing of young or hibernation;
- damage or destroy a breeding site or resting place of any individual or group of bats.

1.3. Survey Aims and Objectives

The aim of the survey was to identify the level of bat usage of lands within the application site of the proposed quarry extension and provide an evaluation of the overall importance of the site for bat populations.

The key objectives of the survey were specifically to:

- confirm the likely presence / absence of any bat roosts within the study area and assess their likely usage and conservation significance if present;
- identify any other area of particular significance for bats, e.g. important foraging areas or commuting routes;
- assess the bat species present within the study area and provide evidence on their likely population size and distribution; and
- evaluate the bat interest of the site based on established criteria.

2. METHODOLOGY

Baseline ecological data were collated through a combination of desk-based study and field survey based on standard methodologies and published good practice guidelines by the Bat Conservation Trust (BCT)[1].

2.1. Study Area

The site of the existing limestone quarry is located in the townland of Kilree, approximately 1km north west of the village of Bennettsbridge and 6.5km south east of Kilkenny city centre, Co. Kilkenny.

The application site covers approximately 61 hectares (ha). The existing operational quarry covers an area of approximately 36.5ha with a consented extraction area of 13.4ha and down to 12 metres Ordnance Datum (mOD). The proposed lateral extension area covers approximately 24.5ha of agricultural land lying to the west of the existing quarry.

The study area for the bat survey included all land within the proposed extension area encompassing the agricultural grassland fields, a small block of broadleaved forestry woodland, hedgerows/treelines and farm buildings associated with a cattle handling facility (Figure 1).

2.2. Preliminary Ecological Appraisal for Bats

2.2.1. Desk-based Study

A desk-based study was undertaken on 20th July 2024 and involved collating data from a number of organisations and examining published data relating to the presence of bats at the site of the proposed quarry extension and within a 2km radius of the site. Data sources included any records held by the National Biodiversity Data Centre (NBDC)[2] and any evidence of previous bat surveys carried out at this site and within the immediate surrounding area.

2.2.2. Daytime Bat Walkover

A preliminary ecological appraisal (PEA) of the proposed quarry extension area was carried out as part of the Habitat Survey carried out at this site on 24th July 2024. This included a Daytime Bat Walkover (DBW) of the study area and included: an inspection of the farm building(s); an assessment of all trees and groups of trees on their suitability to be used by roosting bats by a visual search from the ground of any Potential Roost Features (PRFs) for example holes and cavities, cracks and splits in major limbs, loose bark, dense ivy cover and dense epicormic growth; and on the surrounding landscape and its associated features on their likely importance for bat commuting routes and/or bat foraging habitat.

[1] Collins, J. (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)*. Bat Conservation Trust, London.
[2] www.biodiversiy Ireland.ie

Table 1: Grading System for the Potential Suitability of Sites for Bats

Suitability	Description of Roosting Habitats	Description of Potential Commuting and Foraging Habitat
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground / underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. not habitats that provide continuous lines of shade / protection for flight-lines, or generate / shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion..	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool / stable hibernation site, but could be used by individual hibernating bats).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape or other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as lone tree (not in a parkland situation) or patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed)	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger number of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool / stable hibernation site.	Continuous, high-quality habit that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

2.3. Manual Bat Activity Survey

A manual bat activity survey of the study area was undertaken at dusk on 8th May 2025. The survey comprised of a Night-time Bat Walkover (NBW) based on a transect encompassing as far as practically possible the whole of the study area, but especially areas of likely higher value for commuting and foraging bats. A number of listening stops were used at potentially important areas along the transect for bats with a minimum of three minutes of stationary recording undertaken at each station.

The dusk NBW commenced 30 minutes before local sunset time and continued for approximately 2 hours after sunset. A total of three circuits of the transect were walked during the dusk and dawn NBWs. Figure 2 shows the transect route.

Bat detection equipment used during the survey included an Echo Meter Touch 2 Pro detector attached to a mobile device to continuously record throughout the survey.

2.4. Survey Personnel

The surveys were led by Steve Judge of Green & Blue Ecology. Steve has over 24 years of experience in ecological and environmental consultancy and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and is experienced in carrying out a range of bat surveys in the Republic of Ireland and throughout the UK and Northern Ireland.

2.5. Uncertainty of Data and Limitations

The existing operational quarry were not covered by the NBW transect due to restricted access during night-time for health and safety reasons. However, it is considered that the inclusion of the operational quarry would not significantly alter the findings of the survey given the quarry provides negligible bat habitat.

The use of structures, trees and other features or a particular area of land by bats can vary significantly not only on a seasonal basis but also from day to day. Therefore the lack of evidence of any one particular bat species does not necessarily preclude their presence on the site at a later date.

Myotis calls are difficult to distinguish on the basis of both echolocation and sightings due to the known parameters of this genus being broadly similar. Calls have been identified to species level wherever possible, by using archive examples to provide a comparative baseline. However, it is important to note that with such species there is the potential for a degree of interpretative error.

3. RESULTS

3.1. Contextual Information and Historical Records

3.1.1. Historical Records for Bats

NBDC returned records for six species of bat including Daubenton's Bat (*Myotis daubentonii*), Natterer's Bat (*Myotis natteri*), Leilser's Bat (*Nyctalus leisleri*), Common Pipistrelle (*Pipistrellis pipistrellis*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), and Brown Long-eared Bat (*Plecotus auritus*) within a 2km radius of the existing quarry and proposed extension area.

No specific bat roosting sites were identified however, it is likely that some of the records returned by NDBC are where potential sites historically used by bats for roosting purposes.

3.1.2. Previous Bat Surveys

As far as can be ascertained the study area has not been subject to any previous bat surveys.

3.2. General Habitat Description

The application site for the proposed continuation of use and extension of the existing quarry at Kilree covers approximately 61 hectares (ha). The existing operational quarry covers an area of approximately 36.5ha with a consented extraction area of 13.4ha and down to 12 metres Ordnance Datum (mOD). The proposed lateral extension area covers approximately 24.5ha of agricultural land lying to the west of the existing quarry.

The surrounding landscape is dominated by agricultural land comprising of fields under permanent pasture and arable typically bounded by hedgerows / treelines interspersed by small patches of woodland and a number of other quarry sites. The River Nore flowing in a southerly direction approximately 660m east of the quarry forms a dominant landscape feature along with the M9 motorway that runs in a north east to south west direction and immediately adjacent the southern boundary of the quarry.

The study area and its immediate surrounding area lie in an identified with a medium index suitability for all bat species with a score of 30.33[3].

3.3. Preliminary Ecological Appraisal

3.3.1. Preliminary Roost Assessment - Buildings

Within the proposed quarry extension area there is one building complex at a farm yard used for the handling of cattle, that was assessed as providing negligible suitability for roosting bats. Table 2 provides a summary description of this building and its location shown on Figure 2.

[3] https://www.biodiversityireland.ie

Table 2: Building/Structure Description and Bat Roosting Suitability

Building/Structure Reference and Photograph	Description	Suitability for Roosting Bats
B1 	A farm yard area within the extension area comprises of: a dutch-type barn on a concrete pad and constructed from a steel-frame, with concrete side walls and corrugated tin roof and end walls; and a steel framed, corrugated tin roofed cattle handling facility with slatted concrete floor for the collection of slurry. Sliding steel doors were open on the eastern side of the barn at the time of the survey. No evidence of current or historical use by bats found during the internal inspection of the dutch-type barn	Negligible

All buildings / structures associated with the quarry are of a construction and design that they have no features likely to be used by bats for roosting purposes.

The limestone quarry walls have some natural fissuring and crevices. However, these are considered not likely to provide appropriate conditions for roosting bats and due to high levels of disturbance from daytime quarrying operations. The quarry is therefore assessed as providing negligible roosting opportunities for bats.

3.3.2. Potential Roost Features - Trees

A total of three trees were identified with Potential Roost Features (PRF). All of these trees were assessed as having low suitability for roosting bats in that they are not likely to be used on a regular basis or by large number of bats and highly unlikely to used as a maternity or hibernation roost. Table 3 provides a summary description of each of these trees and their locations shown in Figure 2.

All other trees within the proposed extension area are assessed as providing negligible opportunities for roosting bats.

Table 3: Description of PRFs and Assessment of Suitability (Trees)

Tree Reference and Photograph	Description	Suitability for Roosting Bats
T1 	A mature Ash (*Fraxinus excelsior*) in a hedgerow running along the western boundary of a block of broadleaved forestry woodland. The tree has a rot hole on the western side of its trunk approximately 3m above the ground. Other small splits and crevices are present throughout the canopy where some dead branches have snapped. The tree exhibits signs of infection from *Hymenoscyphus fraxineus* and is generally in poor condition.	Low

Tree Reference and Photograph	Description	Suitability for Roosting Bats
T2 	A mature Ash in in a hedgerow running along the western boundary of a block of broadleaved forestry woodland. The trunk of the tree is covered in dense ivy extending into the canopy. A number of small splits and crevices are present throughout the canopy where some dead branches have snapped. The tree exhibits signs of infection from *Hymenoscyphus fraxineus* and is generally in poor condition.	Low
T3 	A mature Ash in in a hedgerow running along the western boundary of a block of broadleaved forestry woodland. The trunk of the tree is covered in dense ivy extending into the canopy. A number of small splits and crevices are present throughout the canopy where some dead branches have snapped. The tree exhibits signs of infection from *Hymenoscyphus fraxineus* and is generally in poor condition.	Low

3.3.3. Commuting and Foraging Habitat

The habitats within the application site are assessed as being of low to moderate suitability for commuting and foraging bats. Although there are a number of hedgerows / treelines providing connected habitat to the north and west connection to the south and east is disrupted by the M9 motorway and somewhat disconnected to the River Nore.

3.4. Summary of the Manual Bat Activity Surveys

A summary of the manual bat activity survey dates, timings and weather conditions is presented in Table 4.

Table 4: Manual Activity Dates, Timings and Weather Conditions

Date	Survey Type	Local Sunset / Sunrise Time	Timings	Weather Conditions
08/05/2025	NBW (dusk)	21:07	20:30 to 23:02	Start: temperature 14^{O}C, cloud cover 5/8, wind speed 1 (light air from south west), rain 0 (none). Finish: temperature 13^{O}C, cloud cover 6/8, wind speed 1 (light air from south west), rain 0 (none).

The manual activity surveys recorded relatively low levels of activity of four species of bat including: Natterer's bat, Leisler's bat, common pipistrelle and soprano pipistrelle. Table 5 provides of summary of the NBW.

Table 5: Manual Bat Activity Surveys – Summary of Results

Date	Summary of Results
08/05/2025 (NBW dusk)	The transect was started in the south west corner of the proposed extension area incorporating a watch of the three mature ash trees. The first bat recorded was a Leisler's Bat recorded at 20:33 (34 minutes before sunset) flying from a westerly direction before foraging over the grassland field adjacent south west corner of broadleaved woodland. A further five passes by foraging Leisler's Bat were recorded between the south east corner of the broadleaved woodland and the mature Ash at T1. LS at each of the mature Ash at T1, T2 and T3 did not record any bats emerging from these trees. A Soprano Pipistrelle was recorded foraging at 21:32 immediately north of the mature Ash at T3 before flying in a northerly directly. A further five passes by two Soprano Pipistrelles were recorded foraging over the grassland field where the woodland turns west and which were joined by a Leisler's Bat at 21:39. At the next corner of the woodland, Leisler's Bat (three passes) and Soprano Pipistrelle (two passes) were recorded along with a Common Pipistrelle at 21:42. No further bat activity was recorded until 21:49, when a Soprano Pipistrelle was recorded foraging along the northern edge of the woodland and a section of ride and which was joined by a Common Pipistrelle. 21:52. On the approach to the farm yard a Common Pipistrelle was foraging along the lane (three passes) and was the last bat recorded on route around the farm yard. After leaving the farm yard Common Pipistrelle and Leisler's Bat were recorded foraging along the farm track and associated hedgerows / treelines. Just before the junction of another farm track at the mid-point of the boundary of the study area at this location a Natterer's Bat was recorded but not seen at 22:02. North of the farm track junction further foraging by Common Pipistrelle and Leisler's Bat was recorded and which were joined at 22:04 by a foraging Nathusius's Pipistrelle (*Pipistrellus nathusii*) (eight passes). At the north west corner of the study area a Soprano Pipistrelle was recorded foraging along the lane (nine passes) and which was joined and replaced by a Common Pipistrelle (six passes). At the point the track meets the existing quarry a Leisler's Bat was foraging along the track (two passes) and another Natterer's Bat recorded but not seen at 22:12. Along the hedgerow running between the field and quarry Leisler's Bat was recorded foraging. A Nathusius's Pipistrelle was recorded commuting in a northerly direction at 22:18 and which was followed by a Soprano Pipistrelle at 22:19 that was the last bat recorded before the transect was concluded in the north east corner of the study area at 23:02.

Table 6 presents the total number of passes for each species of bat recorded during the NBW and the distribution of bats recorded is shown in Figure 3.

Table 6: Total Number of Passes for Each Bat Species Recorded

Species	08/05/2025
Common Pipistrelle	17
Soprano Pipistrelle	21
Nathusius's Pipistrelle	9
Leisler's Bat	26
Natterer's Bat	2
Total:	**75**

4. INTERPRETATION AND EVALUATION

4.1. Evaluation of Bat Roost Status

The timing of the first bat recorded 34 minutes before sunset would indicate that there is a Leisler's Bat roost in close proximity to the study area and based on the direction of travel is likely to be a farm complex approximately 950m south east of the proposed quarry extension area.

No bats were observed emerging from the three mature Ash trees and not bat activity was recorded around the farm yard within the study area. No roost were confirmed during the DBW and/or NBW.

4.2. Evaluation of Habitat Resource for Foraging and Commuting

An assessment of value of the proposed quarry extension area has been based on Wray *et al*. (2010)[4] for determining a score for bat habitat values for both commuting and foraging habitat. Although developed for use in the UK and Northern Ireland, it is considered transferable to evaluating the value of bat habitats in Ireland.

It should be noted that the Wray *et a*l. system provides a framework that still requires the consideration of local factors and professional judgement to be made. The approach, for example, does not provide a definition of what constitutes '*small*' or *'large*' numbers of bats. Information on known colony sizes for each species has been used to assess whether the numbers of each species recorded using the application site should be treated as '*small*' or *'large*' numbers of bats when using the system. This includes referencing known roost sizes for each species in a local context. Also, in order to evaluate whether the population using the site is 'small' or 'large' it is important to consider the estimated (study area) population size, the size of the site being surveyed and relative status (commonness) of the bat species being evaluated. The evaluation also considers the likely usage of the site by such species, i.e. do they range over wide areas or tend to stay local to a roosting site based on their core sustenance zones (CSZ).

Table 7 provides an overview of the criteria and scoring system (scores in brackets) at taken from Wray *et a*l.

Table 7: Scoring System for Valuing Commuting and Foraging Habitats

Species	Number of Bats	Roosts / Potential Roosts Nearby	Type and Complexity of Commuting Routes	Foraging Habitat Characteristics
Common bat species (2)	Individual Bats (5)	None (1)	Absence of linear features (1)	Industrial or other site without established vegetation (1)
Rarer bat species (5)	Small number of bats (10)	Small number (3)	Un-vegetated fences and large field sites (2)	Suburban areas or intensive arable land (2)
Rarest bat species (20)	Large number of bats (20)	Moderate number / not known (4)	Walls, gappy or flailed hedgerows, isolated well-grown hedgers	Isolated woodland patches, less intensively arable and/or small

[4] Wray, S., Wells, D., Long, E & Mitchell-Jones, E. (2010). *Valuing Bats in Ecological Impact Assessment*. In Practice 70: 23-25. December 2010, Chartered Institute of Ecology and Environmental Management.

Species	Number of Bats	Roosts / Potential Roosts Nearby	Type and Complexity of Commuting Routes	Foraging Habitat Characteristics
			and moderate field sizes (3)	towns and villages (3)
		Large number of roosts, or close to a nationally designated site for the species (5)	Well-grown and well connected hedgerows, small field sizes (4)	Larger or connected woodland blocks, mixed agriculture and small villages and hamlets (4)
		Close to or within a SAC for the species (20)	Complex network of mature well-established hedgerows, small fields and rivers / streams (5)	Mosaic of pasture, woodland and wetland areas (5)

The scores from the first three columns and taking the highest score obtained from commuting routes and foraging habitat columns are added together to determine the appropriate geographic from of reference used to evaluate value based on the scoring system in Table 8.

Table 8: Assigning a Geographic Frame of Reference

Geographic Frame of Reference	Score
International	>50
National	41 - 50
County	21 - 40
Local (Higher)	11-20
Local (Lower)	1 - 10

The application site is characterised as agricultural fields under improved permanent pasture typically bounded by hedgerows / treelines that is relatively isolated due to the presence of the M9 motorway limiting the connectivity to the River Noreand other potentially higher value habitats for bats in the much wider surrounding area.

Relatively low levels of activity of five species of bat were recorded during the survey. Leisler's Bat was the most frequently recorded species followed by Soprano Pipistrelle and Common Pipistrelle. , Leisler's bat and Natterer's bat.

A summary of the evaluation for each bat species recorded at the application site is provided in Table 9.

Table 9: Determination of Ecological Value of Bat Habitats for Individual Species for Proposed Quarry Extension Area at Kilree

Species	Species Value	Number of Bats	Roosts / Potential Roosts Nearby	Type and Complexity of Commuting Routes	Geographic Frame of Reference and Score for Application Site
Common Pipistrelle	Common (2)	Individual Bats (5)	Small Number (3)	Walls, gappy or flailed hedgerows, isolated well-grown hedges and moderate field sizes Isolated woodland patches, less intensively arable and/or small towns and villages (3)	Local (Higher) (13)
Soprano Pipistrelle	Common (2)	Individual Bats (5)	Small Number (3)	Walls, gappy or flailed hedgerows, isolated well-grown hedges and moderate field sizes Isolated woodland patches, less intensively arable and/or small towns and villages (3)	Local (Higher) (13)
Nathusius's Bat	Rarer (5)	Individual Bats (5)	Small Number (3)	Walls, gappy or flailed hedgerows, isolated well-grown hedges and moderate field sizes Isolated woodland patches, less intensively arable and/or small towns and villages (3)	Local (higher) (16)
Leisler's Bat	Common (2)	Individual Bats (5)	Small Number (3)	Walls, gappy or flailed hedgerows, isolated well-grown hedges and moderate field sizes Isolated woodland patches, less intensively arable and/or small towns and villages (3)	Local (Higher) (13)
Natterer's Bat	Rarer (5)	Individual Bats (5)	Small Number (3)	Walls, gappy or flailed hedgerows, isolated well-grown hedges and moderate field sizes Isolated woodland patches, less intensively arable and/or small towns and villages (3)	Local (higher) (16)

5. CONCLUSIONS

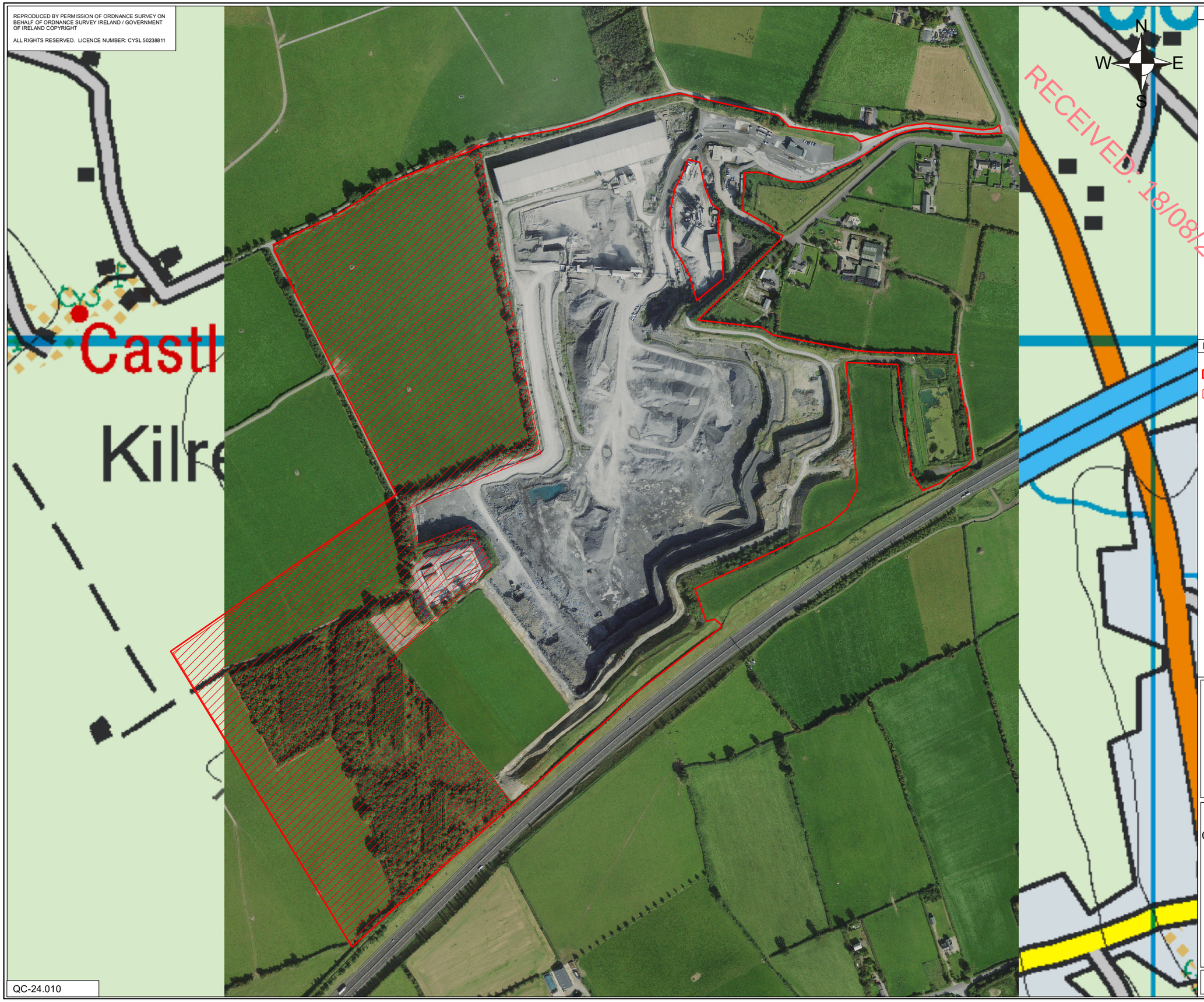
The bat activity survey carried out in May 2025 recorded a total of five species of bat using the proposed quarry extension area at Kilree, with relatively low levels of bat activity recorded for Natterer's Bat, Leisler's Bat, Nathusius's Bat, Common Pipistrelle and Soprano Pipistrelle.

The main areas of activity were typically associated with the hedgerow / treelines running along the farm tracks. Although bats were recorded foraging along the edge of the broadleaved woodland, this habitat does not appear to be important for any particular bat species. Overall the habitat resource for commuting and foraging bats at the application site is evaluated at Local (higher) value for all species recorded.

Although the three mature Ash trees were not confirmed as being used by roosting bats, there is the potential for this to be used occasionally as a day, night and/or feeding roosting purposes and consideration should be given to the soft felling of these trees with any felled material left on the ground for at least 24 hours before being removed.

The farm yard and its associated buildings is assessed as being of negligible suitability for roosting bats and its demolition is not likely to have any implications for roosting bats.

FIGURES



NOTES

LEGEND

APPLICATION SITE

STUDY AREA

QUARRY CONSULTING

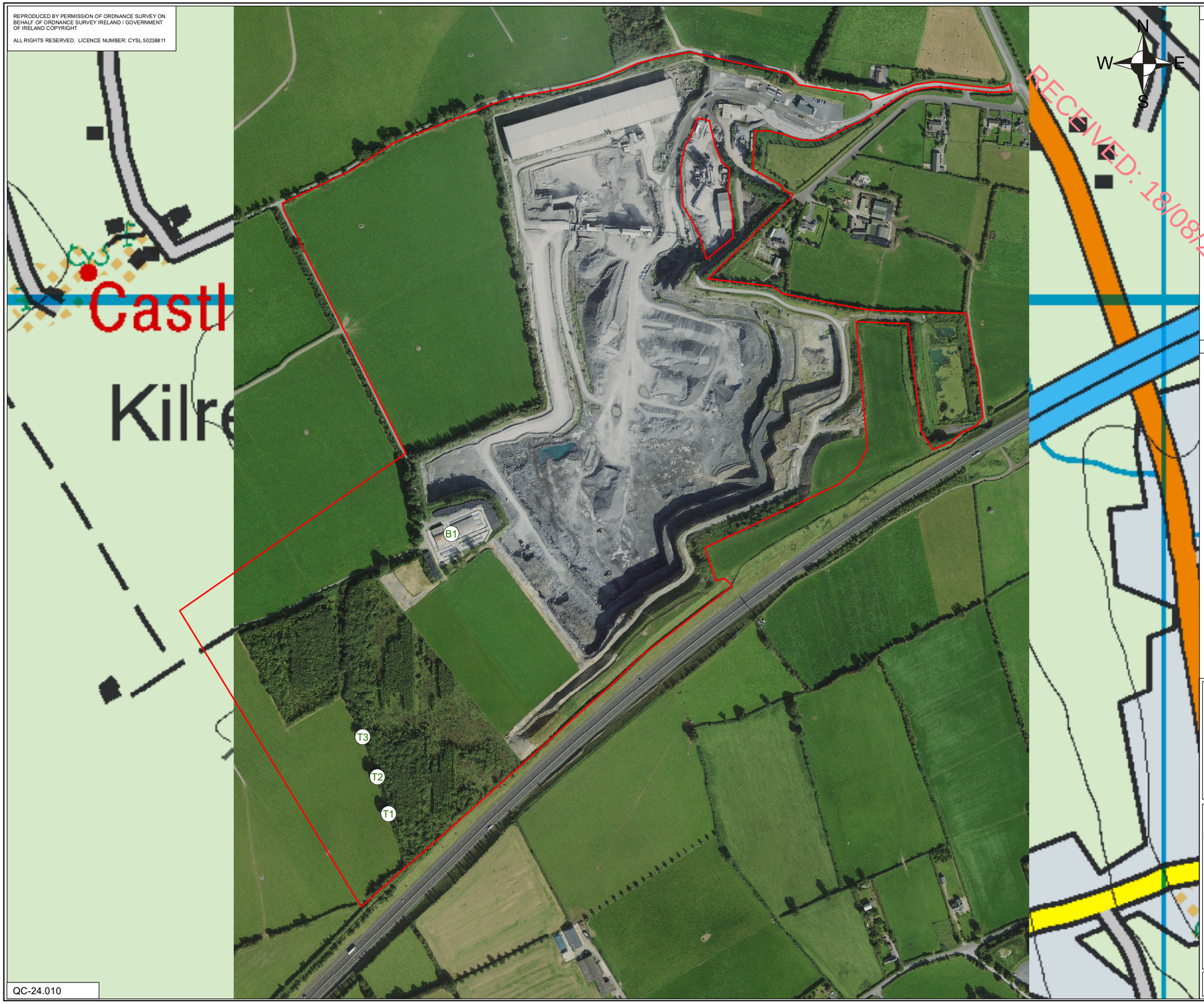
CONTINUATION OF USE AND EXTENSION OF AN EXISTING QUARRY AT KILREE, BENNETTSBRIDGE, CO. KILKENNY

BAT SURVEY AND EVALUATION
LOCATION OF STUDY AREA

FIGURE 1

Scale	Date
1:5,000 @ A3	JULY 2025

QC-24.010



NOTES

LEGEND

APPLICATION SITE

PRFs

QUARRY CONSULTING

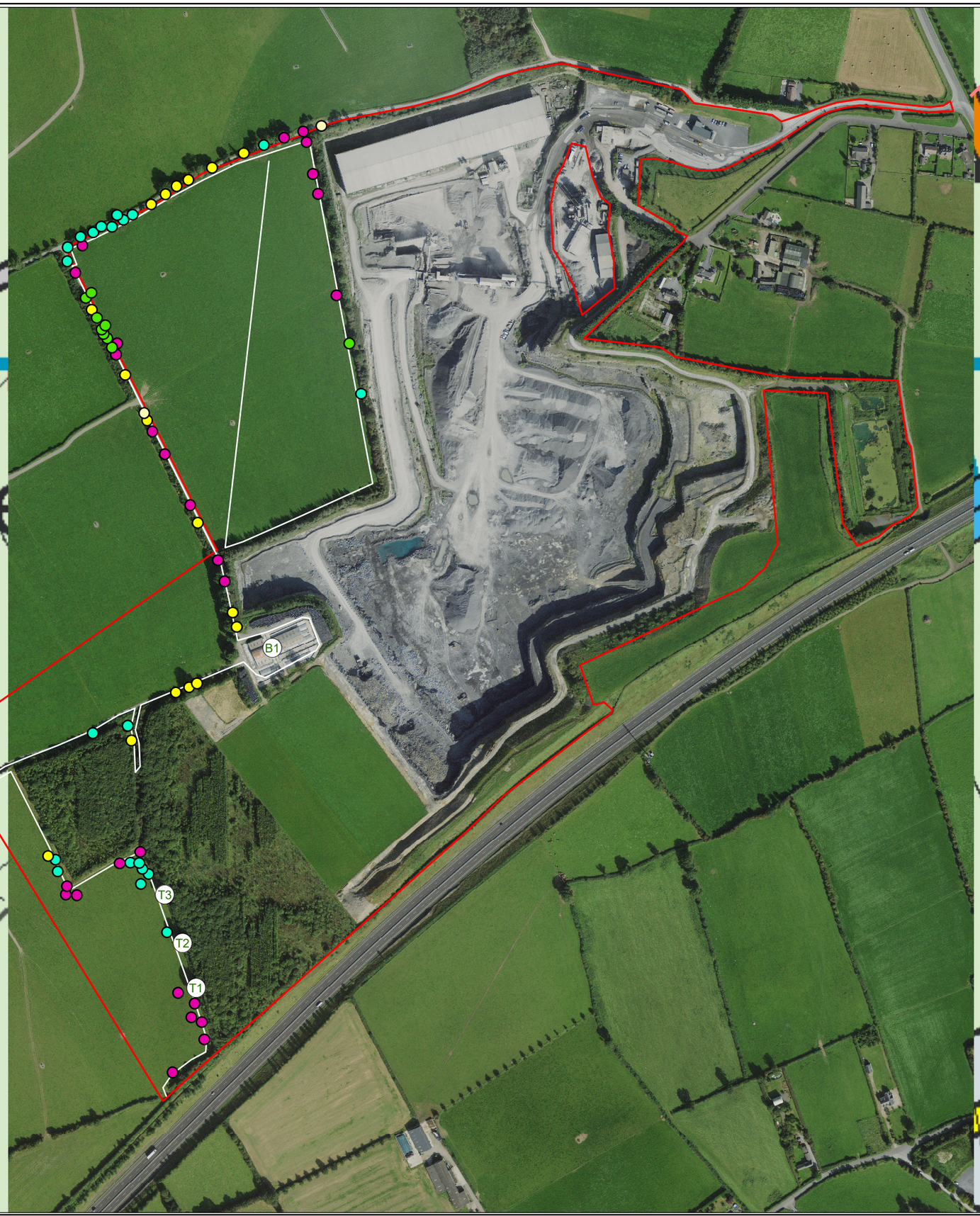
CONTINUATION OF USE AND EXTENSION OF AN EXISTING QUARRY AT KILREE, BENNETTSBRIDGE, CO. KILKENNY

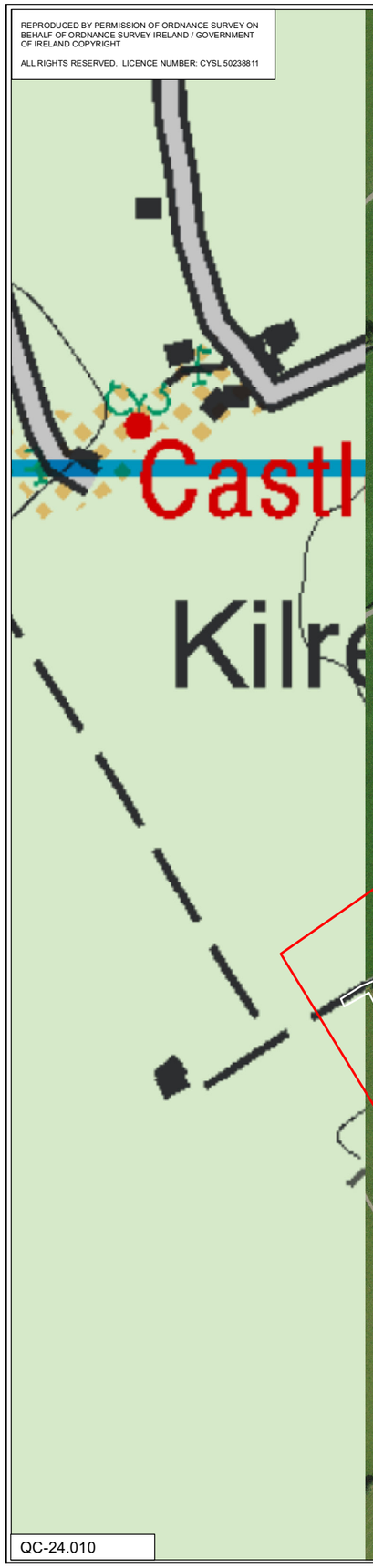
BAT SURVEY AND EVALUATION POTENTIAL ROOSTING FEATURES

FIGURE 2

Scale	Date
1:5,000 @ A3	JULY 2025

QC-24.010





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RECEIVED: 18/08/2025

NOTES

LEGEND

- APPLICATION SITE
- PRFs
- Transect

BAT SPECIES

- NATTERER'S BAT
- LEISLER'S BAT
- COMMON PIPISTRELLE
- SOPRANO PIPISTRELLE
- NATHUSIUS'S PIPISTRELLE

QUARRY CONSULTING

CONTINUATION OF USE AND EXTENSION OF AN EXISTING QUARRY AT KILREE, BENNETTSBRIDGE, CO. KILKENNY

BAT SURVEY AND EVALUATION BAT ACTIVITY ON 08/05/2025

FIGURE 3

Scale	Date
1:5,000 @ A3	JULY 2025

QC-24.010