

# Bat Roost Survey for Proposed Development Site

At Bothwell Road

Hamilton

South Lanarkshire

ML3 0AY

July - August 2022

Prepared by Baker Ecology

## **Executive Summary**

Baker Ecology Ltd. was commissioned in July 2022 to complete an update to a daylight bat roost potential inspection of trees at a proposed development site adjacent to Bothwell Road, Hamilton as part of baseline data collation prior to the development of the site. The project includes removal of a small number of trees to make way for a new residential development.

The daylight inspections confirmed seven trees still had potential roost features (PRF) present that bats could use to access and roost in, of which six were considered of Moderate or High roost potential and so required further survey work. Following a high due regard for the possibility that bats could roost in trees we completed a series of bat presence/absence surveys during the key bat survey season (May – September inclusive) to confirm whether any roosting bats were in fact present. These surveys found two active Soprano Pipistrelle roosts (in tree 2063) within the Application Site, each used by one bat. Roosting bats are therefore an ecological constraint for the proposed development of the Application Site and it will be necessary to apply for a licence to destroy the bat roosts once planning has been approved. This report presents the findings of the surveys, and has a Bat Protection Plan appended that will guide the developmental process to ensure no harm comes to any roosting bat, and that a firm commitment to appropriate bat roost compensation is provided before, during, and after development.

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## 1. Introduction

Baker Ecology Ltd. was commissioned in July 2022 to complete an update to a daylight bat roost potential inspection of trees at a proposed development site adjacent to Bothwell Road, Hamilton (NS 71678 56543, Figure 1. and Plates) as part of baseline data collation prior to the development of the site. The project includes removal of a small number of trees to make way for a new residential development.

The daylight inspections confirmed seven trees still had potential roost features (PRF) present that bats could use to access and roost in, of which six were considered of Moderate or High roost potential and so required further survey work. Following a high due regard for the possibility that bats could roost in trees we completed a series of bat presence/absence surveys during July and August 2022 to confirm whether any roosting bats were in fact present. These surveys found two active Soprano Pipistrelle roosts present in tree 2063 within the Application Site. Roosting bats are therefore an ecological constraint for the proposed development of the Application Site, and it will be necessary to apply for a licence to destroy both bat roosts once planning has been approved. This report presents the findings of the surveys, and has a Bat Protection Plan appended that will guide the process to ensure no harm comes to any roosting bat. It also makes firm commitment to compensatory roost provision during and after development of this site.

## 2. Relevant Policy and Guidance

This ecological assessment has been undertaken with regard to the legislative requirements given in the following:

- The Conservation (Natural Habitats &c.) Regulations 1994 (The Habitats Regulations);
- The Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations as amended (2004, 2007, 2008, 2011, and 2012);
- Nature Conservation (Scotland) Act, 2004;
- Wildlife and Countryside Act 1981 (and subsequent amendment through The Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations 2007, 2009, & 2011);
- Wildlife & Natural Environment (Scotland) Act (2011);
- Wild Mammals (Protection) Act, 1996;
- The Convention on the Conservation of European Wildlife and Natural Habitats (The Berne Convention), 1979;
- The Land Reform (Scotland) Act, 2003;
- Scottish Planning Policy (June 2014) replaces NPPG14 and SPP (February 2010);
- The UK Biodiversity Action Plan (BAP), revised priority list 2007;
- The South Lanarkshire Biodiversity Strategy 2018 - 2022 (SLBS);
- The UK Biodiversity Action Plan (UK BAP), revised priority list 2007; and the
- Scottish Biodiversity List 2007

### 2.1. Biodiversity Status

The UK Biodiversity Action Plan (BAP) is the UK Government's commitment to the Convention on Biological Diversity signed in 1992. It is comprised of two types of Action Plans developed to set priorities for nationally and locally important habitats and wildlife:

### Species Action Plans

- Produced for UK BAP Priority Species: information on the threats facing 382 species and action plan targets to achieve a positive conservation status;
- Grouped Species Action Plans - common policies, actions and targets for similar species, for example for Eyebrights, or Commercial Marine Fish. There are nine grouped action plans;
- Species Statements - overview of the status of species and broad policies developed to conserve them for two groups of species.

Soprano Pipistrelles are a UK Biodiversity Action Plan priority species but Common Pipistrelle bats have now been removed from the list (2007). Daubenton's bat is a species of UK conservation concern.

### Habitat Action Plans

- Broad Habitat Statements - summary descriptions of 28 natural, semi-natural and urban habitats and the current issues affecting the habitat and broad policies to address them; and
- UK BAP Priority Habitat Action Plans - detailed descriptions for 45 habitats falling within the Broad Habitat classification and detailed actions and targets for conserving these habitats.

### Local Biodiversity Action Plans

Each Local Biodiversity Action Plan (LBAP) partnership, usually but not always at the local authority level identifies and establishes actions to conserve local priorities and also link this action to the delivery of national Species and Habitat Action Plan targets wherever possible. Grouped action plans at this level include bats, and Waders, for example.

Soprano & Common Pipistrelle bats were key species in the previous South Lanarkshire Biodiversity Strategy as all UK key BAP species were classed as key species locally. In the latest version of the strategy an ecosystem approach is taken, which encompasses conservation of key species by conservation of habitats.

### ***2.2. European Protected Species: The Conservation (Natural Habitats &c.) Regulations 1994 (The Habitats Regulations)***

Full consideration of European Protected Species (EPS) must be given as part of the planning application process, not as an issue to be dealt with at a later stage. The European Protected Species of animal of potential relevance to this survey area were bat species found in Central Scotland.

European Protected Species are protected in Annex IVa in the EC Habitats and Species Directive, which is transposed into UK legislation by the Conservation (Natural Habitats &c.) Regulations 1994 (Schedule II of The Habitats Regulations). The full details of this legislation can be viewed at:

[http://www.opsi.gov.uk/SI/si1994/Uksi\\_19942716\\_en\\_4.htm](http://www.opsi.gov.uk/SI/si1994/Uksi_19942716_en_4.htm)

This legislation was amended on the 14th February 2007 (The Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations 2007.), and explanatory guidance on this was published by the Scottish Government in April 2007. The amendment removed all EPS from Schedule 5 of the Wildlife & Countryside Act 1981. There are therefore now no defences in the WCA 1981 whatsoever for any actions impacting on EPS, and protection is afforded by the following legislation only:

Under Regulation 39 of the Conservation (Natural Habitats &c.) Regulations 1994 (The Habitats Regulations) it is now a criminal offence (subject to specific exceptions) to:

(a) deliberately or recklessly to capture, injure or kill a wild animal of a European protected species; (only defences are mercy killing, capture for tending a disabled animal or circumstances where the animal is captive bred and lawfully held).

(b) deliberately or recklessly–

- (i) to harass a wild animal or group of wild animals of a European protected species;
- (ii) to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;
- (iii) to disturb such an animal while it is rearing or otherwise caring for its young;
- (iv) to obstruct access to a breeding site or resting place of such an animal, or otherwise to deny the animal use of the breeding site or resting place;
- (v) to disturb such an animal in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of the species to which it belongs; or
- (vi) to disturb such an animal in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;

(c) deliberately or recklessly to take or destroy the eggs of such an animal; or

(d) to damage or destroy a breeding site or resting place of such an animal.

It should be noted that only the offence of damaging or destroying a breeding site or resting place of an EPS is a strict liability offence. The remaining offences are offences only where they are carried out “deliberately” or “recklessly”.

In Scotland licenses may be granted by NatureScot to permit certain activities that would otherwise be illegal due to their potential impact on EPS or their places of shelter/breeding, whether or not they are present in these refuges. This includes for developmental work. Under Regulation 44 of The Habitats Regulations, the provisions in Regulation 39 (protection of animals) do not apply to anything done for any of the purposes defined in Regulation 44 provided that any action is carried out “under and in accordance with the terms of a licence granted by the appropriate authority”.

Three tests must be satisfied before a development licence for disturbance of an EPS or damage to a site/destruction of a site used by EPS will be granted. Note: A license application will fail unless all three tests are satisfied.

- Test 1 - the licence application must demonstrably relate to one of the purposes specified in Regulation 44(2). This regulation states that licences may be granted by NatureScot where the activities to be carried out under any proposed licence are for the purpose of “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment”;
- Test 2 - Regulation 44(3)(a) states that a licence may not be granted unless NatureScot is satisfied “that there is no satisfactory alternative”; and
- Test 3 - Regulation 44(3) (b) states that a licence cannot be granted unless NatureScot is satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”.

#### Note: Breach of Licensing Conditions

A new regulation 46A came into force on 15th May 2007. This now makes it an offence to breach any conditions attached to a licence. Licence conditions should therefore be adhered to at all times.

### 2.3. Additional Legal Protection

- Additional protection is afforded through the Bern Convention (1979), enacted in Scotland through the Nature Conservation Act (Scotland) 2004;
- Appendix III, the Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1980), Appendix 2; and
- The Bonn Convention's Agreement on the Conservation of Bats in Europe (London, 1991).

It is also a legal obligation in Scotland to consult with NatureScot before you do anything that might affect bats or their roosts such as:

- Removal of hollow, old, or decaying trees;
- Blocking, filling, or installing grilles over old mines or caves; and
- Building, alteration, maintenance, or re-roofing.

In all cases where bats are found to occupy trees or buildings and there is a developmental issue, NatureScot must be informed before any development takes place. A licence to permit development may then be obtained from NatureScot if appropriate.

## 3. Bats in Scotland

### 3.1. UK Bat Populations and Roost Significance

Ten species of bat are known from Scotland (Table 3.1).

**Table 3.1. Population estimates for the 10 species of UK bats found in Scotland (from Wray et al. 2010)**

Status in the UK	Scotland
Common (>100,000 bats)	Common Pipistrelle Soprano Pipistrelle
Rare (10,000 – 100,000 bats)	Natterer's Bat Brown Long-eared Bat Daubenton's Bat
Rarest (<10,000 bats)	Noctule Bat Leisler's Bat Nathusius' Pipistrelle Whiskered Bat Brandt's Bat

Of these, five species are relatively widespread in Central Scotland:

- Common Pipistrelle Bat (*Pipistrellus pipistrellus*) 45 kHz;
- Soprano Pipistrelle Bat (*Pipistrellus pygmaeus*) 55 kHz;
- Daubenton's Bat (*Myotis daubentonii*);

- Brown Long-eared Bat (*Plecotus auritus*); and
- Natterer's Bat (*Myotis nattereri*)

Another four also occur in Central Scotland (again all of which are known to occur in South Lanarkshire) but tend to have restricted distributions, or less is known about their distribution:

- Nathusius's Pipistrelle Bat (*Pipistrellus nathusii*) 38 kHz – (Edinburgh, Stirlingshire, Fife, Perth & Kinross, Renfrewshire, Midlothian, and possible but unconfirmed in Ayrshire);
- Noctule Bat (*Nyctalus noctula*) (more of a southern Scottish distribution but recorded in Ayrshire, Lanarkshire, Glasgow, Stirlingshire, West Lothian and East Dunbartonshire);
- Whiskered Bat (*Myotis mystacinus*) – within the Ayrshire, Lanarkshire, Stirlingshire, and Midlothian areas; and
- Leislers Bat (*Nyctalus leisleri*) (more of a southern Scottish distribution but known from East Renfrewshire, and North Ayrshire, and possible but unconfirmed in South Lanarkshire).

The 10<sup>th</sup> Scottish species Brandt's Bat (*Myotis brandtii*) is considered to be rare, with only a few records and roosts known, and its known distribution is currently limited to southern Scotland and western Perthshire.

From publicly available information nine of these species are known to occur in South Lanarkshire, with the only one absent or not recorded being Brandt's Bat.

### 3.2. Bat Roost Types

Nine main types of roost have been identified (Collins 2016). These are:

- Day roosts (March – November but more-so in the summer): used for resting during the day, and may be occupied daily by solitary or small numbers of males, or may be used infrequently as part of a chain of roost sites alternated daily but are rarely occupied at night. Whole colonies of some species such the Leisler's bat will change roost during the day including taking young with them;
- Night roosts (March – November): a place where bats rest or shelter during the night but are rarely present during the day. Can be used by solitary bats or entire colonies, and are often indicated by large accumulations of insect remains and some droppings;
- Feeding roosts (May – November): a place where individual bats or small groups may rest or feed during the night between bouts of foraging, in times when weather changes, or just for a temporary rest. May be used by solitary bats to whole colonies but are rarely used during the day;
- Transitional/occasional roosts (spring or autumn generally but may be used April-October): Some roosts may be transitional, when small numbers are present for a limited period, usually during the spring and autumn.
- Swarming sites (August – November) tend to be around caves and mines and may be used for hibernation as well as being important for mating, with large numbers of male and female bats gathering from late summer to autumn.
- Mating roosts (September – October): where mating takes place from late summer and may continue through the winter;



- Maternity roosts (May - August): the most obvious roost type. These consist almost exclusively of females, most of which give birth and raise a single young but sometimes may include males in some species of bats. These colonies usually disperse by the autumn, although some species may remain in one roost all year round;
- Hibernation roosts (October – March); roost sizes may vary from individual to groups but must have a high humidity and constant cool temperature above freezing but generally less than 4°C; and
- Satellite roosts (May – August): alternative roosts near to maternity roosts used by a few breeding females or small groups of females throughout the breeding season;

Note: swarming sites (August – November) tend to be around caves and mines and may be used for hibernation as well as gathering for mating.

In Scotland, most species of bats roost by concealing themselves in crevices and are not easy to find. The presence of droppings is a key sign to their presence but numbers of droppings vary widely and even some large roosts have little evidence of droppings to indicate their presence. Hibernating bats however leave little or no trace of their presence. Other possible signs are a characteristic odour like ammonia. In addition, a clean or polished area at a place through which light can enter may suggest an entrance/exit hole.

The importance of each roost type was categorised by Wray (2010):

**Table 3.2. Determination of level of importance of bat roost type (from Wray et al. 2010)**

<b>Geographic Frame of Reference for Roost Importance</b>	<b>Roost Type</b>
Local	Feeding perches Individual bats of common species Small numbers of common species (non-maternity) Mating sites of common species
County	Feeding perches of rare/rarest species Small numbers of rare/rarest species (non-maternity) Hibernation sites for small numbers of common/rarer species Maternity sites of common species
Regional	Large swarming sites Mating sites for rarer/rarest species Maternity sites of rarer species Significant hibernation sites for rarer/rarest species or all species assemblages
National	Sites meeting SSSI guidelines Maternity sites of rarest species
International	SAC sites

Roosts may occur in a wide variety of places, particularly temporary roosts during dispersal and migration but can be categorised into three main groups:

- Those in quarries, caves, mineshafts, tunnels, and bridges;
- Those in buildings; and
- Those in trees

This study focused on potential roosting in trees.

### **3.3. Bats and Trees: Potential Roost Features (PRF)**

Trees may provide safe dry places for bats to roost, although some bats prefer to roost in buildings when suitable buildings are present. Some bats remain roost faithful for prolonged periods, while others may have several alternate roost sites, and others may range much further using roosts several kilometres apart as weather conditions, food availability, and seasons change. Potential roost sites in trees may include:

- Crevices in bark;
- Gaps under loose bark on dead branches or trunks;
- Rotted knot holes;
- Hollow trunks;
- Cracks, splits etc. in stems and branches;
- Rotted-out branches;
- Growth deformities, compression forks, cankers;
- Gaps between overlapping branches;
- Dense ivy coverage;
- Woodpecker and Squirrel holes;
- Bird nesting boxes/bat boxes already present; and
- Crow, Magpie, and Buzzard nests.

## **4. Survey Methods**

All methodology followed Bat Conservation Trust Bat Surveys: Good Practice Guidelines (Collins 2016). Note on the Bat Survey Guidelines from Bat Conservation Trust (January 2016):

*“Professional judgement and surveyor experience: The guidelines are not a prescription for professional bat work. They do not aim to override professional judgement and cannot be used to replace experience. Deviations from the methods described are acceptable providing the ecological rationale is clear and the ecologist is suitably qualified and experienced. In some cases it may be necessary to support such decisions with evidence, particularly if they may lead to legal challenge.”*

*The survey and report were completed by bat worker Dr Paul Baker (MCIEEM) of Acorna Ecology, a bat surveyor with more than 17 years' experience.*

### **4.1. Preliminary Ground Level Assessment of Trees for Bat Roost Potential**

The aim of this survey was to determine if any tree had potential value for use by roosting bats or evidence of any actual bat presence by a detailed inspection of the exterior of the tree from ground level. The survey looked for features that bats could use for roosting (PRFs) and categorised the trees according to their individual potential value for use by roosting bats (Table 4.1. below). Mature trees within the Application Site and immediately adjacent to the boundary of the Site were checked for PRFs such as crevices, holes, splits, tears, and ivy that could be used by bats to enter roosting sites such

as those listed above, along with field signs of bat occupancy such as urine streaking, grease marks, smooth or worn surfaces, or droppings caught on bark or on webs. Where appropriate, inspections were made using binoculars.

Trees with no bat roost potential were not recorded individually.

**Table 4.1. Tree/Building suitability assessed according to the Categories listed in the BCT Guidelines (Collins 2016)**

Suitability	Description of Roosting Habitats
<b>Negligible</b>	Negligible habitat features on site likely to be used by roosting bats.
<b>Low</b>	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions <sup>a</sup> 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 or hibernation <sup>b</sup> ). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential <sup>c</sup>
<b>Moderate</b>	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions <sup>a</sup> and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
<b>High</b>	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions <sup>a</sup> and surrounding habitat.

*a For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.*

*b Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten et al., 2015, in Collins 2016). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.*

*c This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).*

#### **4.2. Bat Presence/Absence Surveys**

Following national guidelines on levels of roost potential and appropriate survey effort the trees with PRF present required either one dusk emergence survey and one pre-dawn return to roost survey for those with moderate potential, or two dusk and one pre-dawn survey for those with high potential.

Note: SSF Bat -2 and Batbox Duet detectors were used during the surveys, with SSF Bat-2 detectors scanning all frequencies for echolocating bats, and allowing immediate switching to that frequency for identification purposes.

##### **4.2.1. Bat Emergence Survey**

The survey was completed on 4<sup>th</sup> August 2022 (MP, JB, CW, DM, PB, and RM) in suitable weather conditions for bat activity (temperatures 10°C or greater, light wind or no wind, and dry), and commenced from a half hour before sunset and continued for a minimum of 1.5 hours after sunset.

#### 4.2.2. Bat Pre-dawn Return to Roost Survey

The pre-dawn return to roost survey took place on 20<sup>th</sup> July 2022 (MP, JB, CW, KM, TB, and RM) from 1.5 hours before sunrise until 15 minutes after sunrise in suitable weather conditions for bat activity (Collins 2016).

#### 4.3. Limitations of Survey

The daylight tree inspection survey provided an indication of whether or not the property had potential for use by bats. Daylight inspections are not a substitute for presence/absence surveys, which they usually precede, and which were subsequently completed. There were therefore no significant constraints on the surveys as completed.

### 5. Results

#### 5.1. Preliminary Ground Level Assessment of Trees for Bat Roost Potential

Seven trees had been found to have PRF (Figure 1.), with six scored as of Moderate and High potential for use by roosting bats:

**Table 5.1. Trees with PRF**

Note	Tree tag #	Tree Species	Tree Age	Features	Bat Evidence?	Roost Potential
TN 4	2215	Goat Willow	Immature	Hazard beam from snapped leader at c. 6m.	None	Low
TN 9	2137	Oak	Over-mature	Snapped and dropped limbs resulting in rot hole features. Cracks within main stem.	None	Moderate (assumed)
TN 10	N/A	Birch	Standing Deadwood	Several woodpecker holes through standing deadwood main stem.	None	High (assumed)
TN 13	2140	Oak	Over-mature	Rot hole at c. 10m facing east from a dropped limb.	None	High (assumed)
TN 14	2142	Oak	Over-mature	Flute with rot feature at top approximately 10m up main stem facing west.	None	High (assumed)
TN 15	2063	Horse Chestnut	Standing deadwood	Flaking bark throughout with several rot holes.	None	Moderate (assumed)
TN 17	N/A	Unknown	Standing deadwood	Woodpecker holes within main stem of standing deadwood.	None	Moderate (assumed)

#### 5.2. Bat Survey Conditions and Timings

**Table 5.2. Weather Conditions and Times of Surveys**

Date	Temp start °C	Temp finish °C	Cloud cover (Oktas)	Dry/rain	Wind speed	Wind direction	Start time	End time
20/07/2022	15	16	8/8	Dry	0	-	0258	0513
04/08/2022	14	13	1/8	Dry	1	W	2119	2319

### **5.3. Bat Presence/Absence Surveys**

#### **5.3.1. Dusk Bat Emergence Survey**

Roost R1 and R2 confirmed with Two Soprano Pipistrelles seen emerging from tree 2063.

#### **5.3.2. Pre-dawn Bat Return to Roost Survey**

Roost R1 and R2 identified in rotted branch union on the tree, with two Soprano Pipistrelles seen emerging – one from each roost.

### **6. Conclusions**

The daylight roost potential survey determined that PRF were present and the bat presence/absence surveys subsequently completed confirmed two roost locations.

Roosting bats are clearly an ecological constraint for the development of the Application Site. The Bat Protection Plan appended to this report will not only guide the developmental process in regard to roosting bats but will specify the extent of roost compensation required – at this site this will be comprised of at least six multi-season bat boxes that will be placed on trees within 100m of the known roosts. Box locations will be selected for clear flight paths and ideally be in areas where bats are known to forage to facilitate the bats finding the boxes.

Note: A considerable extent of woodland will remain around the development once complete which will ensure that foraging habitat for bats will continue to be present. This will be further enhanced by woodland management that will open up space within the woodland by understory thinning, which will enhance the woodland for use by foraging bats in the long-term.

### **7. References/relevant reading**

- Collins, J. (ed.) 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn.) The Bat Conservation Trust, London. ISBN-13: 978-1-8727459-96-1
- Mitchell-Jones, A.J., and A.P. McLeish. (Eds.) 2004. Bat Workers Manual 3<sup>rd</sup> Ed. JNCC
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- Wray, S., Wells, D., Long, E. & Mitchell-Jones, T., 2010. Valuing Bats in Ecological Impact Assessment. In Practice, pp. 23-25.

**Figure 1. Location of roost tree**



## **Appendix 1. Bat Protection Plan Bothwell Road**

### **Introduction**

Two non-breeding Soprano Pipistrelle roosts in one tree have been confirmed as ecological constraints for a residential development due to the proposed felling of the tree for developmental purposes.

This work will require a European protected species license that will allow the works to be completed lawfully. This will require the submission of the Bat Survey Report with this Bat Protection Plan. This Bat Protection Plan details the proposed methodology for minimising the potential for harm to the bats, as well as detailing proposed compensation / mitigation.

### **Assessment of Roosts**

- The roosting species present was Soprano Pipistrelle (maximum one bat in each of two roosts) in rotted parts of tree 2063; and
- Both roosts are considered non-breeding roosts based on numbers of bats present.

### **Bats as a Constraint**

Both bat roosts are a constraint for tree felling works, which will be completed by the developer (under bat licence) as the tree has been classed as Category U by a qualified tree surveyor. We consider hibernation potential is unlikely in the rot due to exposure.

### **Impact Assessment, Mitigation, and Compensation**

Following consultation with SNH Species Licencing Team in July 2017, the loss of non-breeding summer roosts used by small numbers of Soprano Pipistrelles is not considered to be significant. The work proposed is therefore not considered to have any potential for significant impact on the national, regional, or local conservation status of the species – not causing death, or roost loss without mitigation.

Compensation for roost loss and roost disturbance will be in the form of at least six woodcrete multi-season bat boxes installed on trees within 100m of the roost tree as per usual guidance (on trees that will not be later felled). Box locations will be agreed with the project licensed bat worker. Boxes will be in place prior to roost destruction or the start of works that may disturb any roosting bat.

### **Method Statement**

- An application for a Regulation 44 license will be applied for as soon as planning is approved.
- All development site contractors will be briefed on the presence of the bat roosts prior to commencing any works at site. The initial briefing will be by a senior bat worker who will brief the Site Manager and senior staff, who will then arrange the briefing of the rest of the workforce, all of whom must sign and date an attendance record demonstrating that they have attended the briefing and understand their legal obligations in regard to bats, roost locations, stand-off zones, and they must follow the bat licence and associated Bat Protection Plan (BPP).
- Tree felling works in regard to roosting bats will be restricted to the tree (2063).

- Basic compensation for roost loss and disturbance is recommended as at least six woodcrete multi-season bat boxes preferably with all installed on trees within 100m of the roost trees but as per usual guidance at least one box must be installed within 100m of the roosts and in advance of any felling/disturbing works to allow the bats potential time to find the boxes.
- There should be no tracking or other site related works closer to the tree than 30m unless the bat licence is in place and on site.
- Tree felling works must be during the active bat season during weather conditions suitable for the survival of any roosting bat (i.e., no works during hibernation period in case roost is in use).
- Felling will be preceded by a single dusk and pre-dawn bat survey to determine numbers of bats present in each roost.
- If one or more bats are present in the roosts then the tree will be climbed and the roosts inspected. Alternatively, if the tree is accessible with a MEWP, then the roosts will be inspected by the licensed bat worker, who will try to locate the bat(s) and remove it/them and/or assess the depth and form of the cavity. The tree will then be felled sectionally to a point above the roost entrance where the tree climber considers the PRF to end and a 1m section below the entrance (or as otherwise determined by the licensed bat worker) will be cut out and carefully lowered under control to ground level where it will be set aside in a position where any bat remaining inside would be able to escape and leave the cavity safely after dark.
- Should more than 5 bats be in the roost works will be suspended and NatureScot consulted.
- If any bat required assistance to leave it will be placed in one of the bat boxes by the licensed bat worker.

#### **Timing of Actions:**

1. Licence application submission to NatureScot (August 2022 - TBC);
2. Installation of six compensatory bat boxes (prior to works so TBC);
3. Single dusk emergence and pre-dawn return to roost survey for both roosts immediately before felling works (TBC);
4. Felling contractor briefing by bat worker (TBC) – contractors will sign up that they have received and understood the briefing;
5. There will be signage placed on the boundary fence to the effect that a bat roost is present in the tree and that no works to the actual tree must take place without written authorisation from the project bat worker. No works should be taking place but this will ensure that no mistakes are made. Until such time as the bat licence is on site to permit lawful disturbance of these two roosts then no works that could constitute a disturbance should take place within approximately 30 50m of the tree.
6. Licenced bat worker inspection of roost cavities or supervision of contractors during sectional felling process. If bat(s) can be safely removed by the licenced bat worker then this will be done and the bat(s) transferred to one of the compensatory bat boxes (TBC);



7. Section with any bat to be cut out and lowered to ground and set aside safe if the bat(s) cannot be accessed by the licensed bat worker. These will be left for at least three days to allow any bats reasonable time to exit (dependent on weather conditions) (TBC);
8. Bat licence return will be done as per completion of works (TBC) – this presumes that development will be complete within a three year timeframe – if it will not be and any works that may disturb roosting bats within any of the three roosts remain to be done then a licence extension will be applied for by the end of May 2025 to allow time for processing before it expires, as this would then necessitate a new application submission once the existing licence has expired.

**Maps/site plans (at an appropriate scale)**

Site map and photographs provided.