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Cushenquarters Farm, Stirling, Bat & Breeding Bird Survey

A REPORT PREPARED BY THE WILDLIFE PARTNERSHIP

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SUMMARY

- This document describes the results of a bat and breeding bird survey undertaken in May & June 2021 at Cushenquarters Farm; located approximately 400m southeast of the village of Plean in Stirlingshire. Prior to the conversion of the existing farm cottage and the demolition of a modern agricultural shed it is necessary to identify the potential for the development plans to impact upon any bat or bird species that may be present within the site.

- Following an initial building inspection, the agricultural shed was found to offer no potential whatsoever for roosting bats. However, the farm cottage does contain potential roost sites and therefore one additional dusk emergence survey and two further dawn swarming surveys were also completed.

- The results of the dusk and dawn activity surveys have established the presence of a solitary non-breeding roost site for soprano pipistrelle bats within the farm cottage. The largest number of bats recorded roosting within the site was one and only on one occasion. The proposed works will involve substantial alterations to the fabric of the building and without mitigation will invariably result in the destruction/disturbance of this roost. Therefore, it will be necessary to obtain a derogation licence from NatureScot Licensing Team before the planned works can take place. However; given that the building only provides a small non-breeding roost for soprano pipistrelle bats this site would also fulfill the criteria for a Bat Low Impact Licence or BLIMP (full details provided within).

- A mitigation plan is presented that will compensate for the loss of roost sites and allow continued use of the site by bats.

- No nests, either current or historic were identified within the farm cottage and therefore breeding birds will not provide any constraints to the proposed works for this building. However, active nests for both swallow and pigeon were identified within the agricultural shed. All species of bird are protected when nesting under the Wildlife and Countryside Act 1981, as amended. Therefore, to avoid damage or other adverse impacts on active nests a full species protection plan is presented within.

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1. Introduction

1.1 Background.

This document describes the results of a bat and breeding bird survey undertaken in May & June 2021 at Cushenquarters Farm; located approximately 400m southeast of the village of Plean in Stirlingshire (see Figures 1 & 2). Prior to the conversion of the existing farm cottage and the demolition of a modern agricultural shed it is necessary to identify the potential for the proposed works to impact upon the current wildlife interest of these structures. Those species which receive protection under national and/or European wildlife legislation, and which are most frequently encountered within old buildings, include numerous bat and bird species (see APPENDIX 1 for further details).

The farm cottage is considered to present a high risk of supporting bats and as such the survey included a full inspection of the building in conjunction with one dusk emergence survey and two dawn swarming surveys.

The primary aims of the survey were:

- To assess the potential use of the building by bats and birds.
- To indicate any further survey requirements.
- To provide guidance in relation to protected species and the proposed development.

2. Methods

2.1 Timing

All work was carried out by a licensed bat ecologist (Dr. Barry Nicholls - Licence number: 126104) in conjunction with three trained field assistants. Timing of surveys and weather conditions are shown in Table 1.

Table 1. Timing and weather conditions for surveys at Cushenquarters Farm.

Survey	Date	Sunset/Sunrise	Weather
Building Inspection	22nd May 2021	n/a	Fine and dry
Emergence Survey	22nd May 2021	Sunset – 21:31 B.S.T	16°C 0.4m/s
Dawn swarming Survey	5th June 2021 19th June 2021	Sunrise – 04:31 B.S.T Sunrise – 04:26 B.S.T	11°C 0.2m/s 9°C 0.1m/s

2.2 Survey Methodology

2.2.1 Building Inspection

The buildings were examined externally using close-focusing binoculars and a high-powered torch where necessary. Where appropriate a ladder (4.75m) was used to carefully inspect flat roofs and gutters for evidence of bats. Signs of bats commonly found during an external search are:

- Droppings – typically found on the ground beneath roof exits, adhered to walls or on flat surfaces such as windows.
- Urine spots on window glass and other smooth surfaces.
- Fur oil stains, indicating a roost entrance.

The buildings were also examined with respect to features that have the potential to be used as roosts or access points into the building. Such features include:

- Holes in walls, pipes, gaps behind window frames, lintels and doorways.
- Cracks and crevices in stonework and brickwork.
- Gaps between ridge tiles and ridge and roof tiles, usually where the mortar has fallen out.
- Gaps between lintels above doors and windows.
- Broken or lifted roof tiles.
- Lifted lead flashing around chimneys, dormer windows, roof valleys and ridges and hips or where lead flashing replaces tiles.
- Gaps between the eaves, soffit board and outside walls.
- Gaps behind weatherboarding, hanging tiles and fascia boarding.
- Suitable entry and exit points around the eaves, soffits, fascia and barge boarding and under tiles.
- The presence of cavity walls and rubble-filled walls.
- Bat droppings on the ground, ledges, windows, sills or urine on window-sills.

Full access was available to the interior of the buildings. Therefore, a thorough interior search was carried out using a high-powered torch and endoscope where necessary. During the interior search particular attention was paid to the characteristic field signs for bats listed above and the following locations:

- The floor and surfaces of furniture.
- Behind pictures, posters, furniture, peeling paintwork, wallpaper, plaster and boarded-up windows.
- Window shutters and curtains.
- Lintels above doors and windows.
- Clean swept floors.

2.2.2 Dusk Emergence and Dawn Swarming Surveys

Following the daylight inspection a dusk watch was maintained in the vicinity of any potential roost sites starting one hour prior to sunset (see Table 1). The survey continued until light levels prevented an accurate assessment of emergence behaviour (approximately one hour after sunset). Throughout the survey, bats were identified in flight using a frequency division bat detector (Batbox Duet) linked to a high-resolution digital sound recorder (Edirol R-09). The calls were later downloaded to a computer and analysed using wave analysis software (Batsound Pro, Pettersson, Sweden), this allowed accurate identification to species level. The time of contact, direction of flight and behaviour of all

bats was recorded. Following the same methodology a dawn survey was carried out two-hours prior to dawn (see Table 1) until it was fully light. Upon returning to their roosts at dawn, bats engage in characteristic swarming behaviour, circling around roost entrances for up to 30 minutes. This distinctive behaviour facilitates the identification of species and the accurate location of roosts at this time.

2.2.3 Breeding Birds

Active nests were recorded when the daytime inspection was undertaken. Active nests were discerned from old nests by the presence of breeding birds and/or evidence such as droppings and feathers. Additionally, the buildings were watched for active birds on the first two visits prior to dusk.

3. Results

3.1 Site Description

Cushenquarters Farm comprises a complex of both agricultural and residential buildings (see Figures 1 & 2). The immediate environs consist of improved grassland used for grazing and are largely suboptimal for bats. Connectivity to the wider environs is extremely limited although a solitary mature tree line to the southwest of the farm offers some commuting habitat. The wider environs offer an abundance of broadleaved woodland that would provide excellent foraging habitat and the riparian woodland lining the Plean Burn (approximately 400m to the southwest) offers ideal foraging habitat for bat species. However, the exposed location, limited connectivity and suboptimal foraging habitat make the presence of large numbers of bats within the farm highly unlikely.

3.2 Building Inspection

The buildings that will be impacted by the proposed development are the existing farm cottage and a modern agricultural shed. To facilitate interpretation of the results each building will be treated separately.

3.2.1 Farm Cottage - External

The farm cottage is a single-storied building constructed from concrete masonry units and coated in roughcast render throughout (see Figures 4-7). The pitched and hipped roofs of the cottage are all lined with grey slate with lead flashing along ridges and valleys. The building is in reasonable condition and the external render is tightly sealed with no cracks or crevices that could be exploited by bat species (Figure 8). Similarly, the building is well sealed around the eaves leaving no points of access to the space above the wallhead (Figure 9). However, there are an abundance of gaps between and beneath the slates (see Figure 10) providing direct access to the space between slates and sarking. There are also several sections of raised flashing providing access to the void beneath (Figure 11) this is a common roost site for crevice dwelling bat species. However, following a thorough inspection there was no evidence, across the external fabric of the building, to indicate the presence of bats. There was also no evidence, either current or historic, to indicate that birds have ever nested within the property.

3.2.1 Farm Cottage - Internal

The pitched and hipped roofs of the farm cottage enclose two discrete roof voids labelled A & B in Figure 3.

Roof Void A - This is a large, L-shaped, roof void lined with wooden sarking throughout and with a floor to apex height of approximately 2m (Figure 12). The roof void is intersected by numerous vertical supporting struts and the floor is lined with a thick layer of fiberglass insulation. The space is currently use for storage and despite a thorough inspection there was no evidence to indicate the presence of bats and potential roost sites across the roof coverings were coated in a thick mat of cobwebs (Figure 13).

Roof Void B - This is a small, linear, roof void cluttered by a variety of supporting struts and lined with wooden sarking throughout (Figure 14). The roof void has a floor to apex height of approximately 2m and is currently used for storage. Despite a thorough inspection there was no evidence to indicate the presence of bats and potential roost sites across the roof coverings were coated in cobwebs (Figure 15).

In summary, there was no evidence, either internally or externally, to indicate that bats have ever been present within the farm cottage but due to the condition of the roof it is considered to offer moderate/high roosting potential for bats.

Figure 1. Aerial photograph showing the location of the building to be impacted at Cushequarters Farm; outlined in red and shown in more detail in Figure 2.

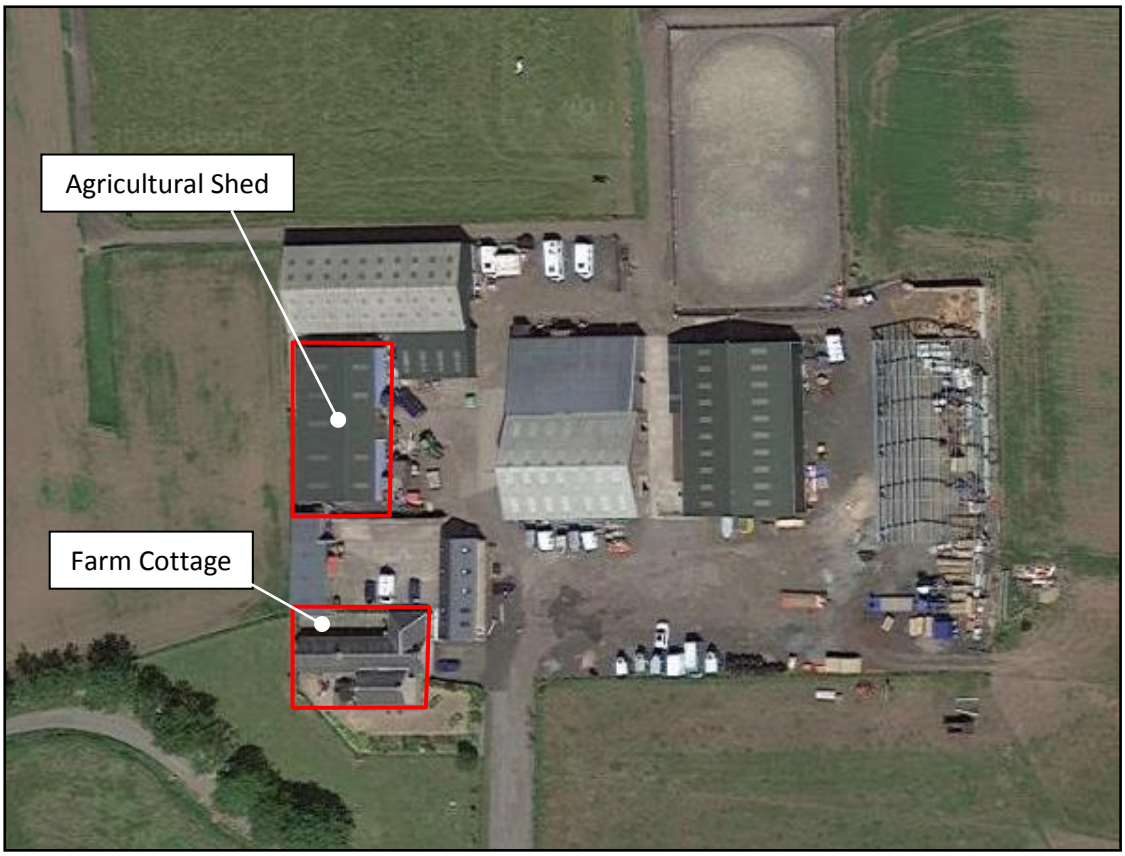

Figure 2. Aerial photograph showing the location of the farm cottage and agricultural shed.

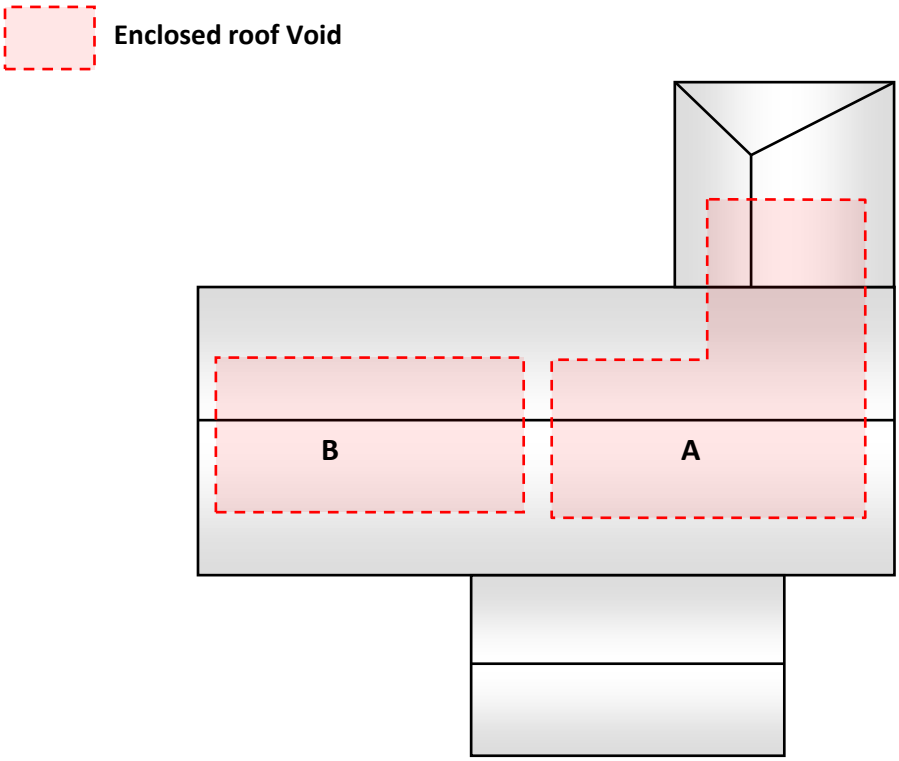

Figure 3. Rough schematic showing the roof layout of the farm cottage. The locations of all enclosed roof voids are highlighted in red and labelled A & B

Figure 4. Farm Cottage – northern elevation.

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Figure 5. Farm Cottage – eastern elevation.

Figure 6. Farm Cottage – western elevation.

Figure 7. Farm Cottage – southern elevation.

Figure 8. The external render is tightly sealed offering no points of access for bat species

Figure 9. The fascia is tightly fitted to the render leaving no points of access for bat species around the eaves of the cottage.

Figure 10. There are numerous gaps between and beneath the slates across the roofs of the cottage.

Figure 11. The void beneath ridge flashing is a common roost site for pipistrelle bats.

Figure 12. Roof void labelled A in Figure 3.

Figure 13. Potential roost sites across the roof are obscured by cobwebs.

Figure 14. Roof void labelled B in Figure 3.

Figure 15. There was no evidence of bats anywhere within the roof voids of the cottage.

3.2.2 Agricultural Shed

This is a large, agricultural shed constructed entirely from single-skinned, folded steel panels on a base of concrete masonry units (Figures 16 – 19). The steel panels are tightly sealed and present a smooth surface that would offer no purchase for bat species and is considered to be wholly unsuitable for roosting bats. The presence of regularly spaced security lights around the eaves of the shed makes the presence of bats even more unlikely (Figure 20). In buildings of this type potential roost sites can often be found at the junction between the base and steel panels; however, all of the locations were tightly sealed and no potential roost sites were identified anywhere across the external fabric of the building.

Internally the shed is currently used to stable horses and is brightly lit by a series of regularly spaced roof lights creating a light regime unlikely to be suitable for roosting bats (Figure 21). Despite a thorough inspection there was no evidence to indicate that bats have ever been present within the shed and no potential roost sites were identified. However, although, there was no evidence of bats within the shed the steel framed roof provides an abundance of nest sites for swallows and at least three active nests for this species were identified. A solitary pigeon nest was also present but no birds were seen accessing this nest throughout the current survey.

In summary, there was no evidence, either internally or externally, to indicate that bats have ever been present within the shed and it is considered to be wholly unsuitable for roosting bats.

Figure 16. Agricultural shed – eastern elevation.

Figure 17. Agricultural shed – western elevation.

Figure 18. Agricultural shed – northern elevation.

Figure 19. Agricultural shed – southern elevation.

Figure 20. Regularly spaced security lights are positioned around the eaves of the shed.

Figure 21. The interior of the shed is brightly lit and wholly unsuitable for roosting bats.

4. Dusk Emergence and Dawn Swarming Survey

A total of two dusk emergence surveys and one dawn swarming survey were conducted at Cushenquarters Farm. Throughout all activity surveys only one bat species was recorded in the vicinity of the site; the soprano pipistrelle (*Pipistrellus pygmaeus*). Bat activity was very low throughout all surveys and only two bats were ever recorded foraging within the site. The location of all bat roosts identified during the surveys is shown in APPENDIX 2 and the most commonly observed foraging and commuting routes are shown in APPENDIX 3.

4.1 Dusk Emergence Survey: 22nd May 2021

4.1.1 Soprano pipistrelle bats

Throughout the first emergence survey no bats were observed or recorded emerging from any location across the cottage. However, two soprano pipistrelles were recorded foraging over the line of threes to the south of the cottage at 21:45 and these two bats continued to forage around the site throughout the survey (see Appendix 3 for location). Bat activity on site was very low and these were the only two bats recorded at any point throughout the survey.

4.2 Dawn Swarming Survey: 5th June 2021

4.2.1 Soprano pipistrelle bats

Bat activity was very low throughout the dawn survey and comprised a total of two soprano pipistrelles foraging intermittently across the site. At 03:45 one of these bats were clearly observed commuting out of the site to the west leaving only a solitary bat which surveyors were easily able to maintain contact with. This bat (soprano pipistrelle) began to swarm around the southern elevation of the cottage at 03:51 and was observed entering a roost site beneath a slate on one of the western gables at 03:54 (roost site shown in Figures 22 & 23 and labelled Soprano pipistrelle roost A in Appendix 2).

4.3 Dawn Swarming Survey: 19th June 2021

4.3.1 Soprano pipistrelle bats

The results of the second dawn survey were very similar to the first, throughout the survey a total of two soprano pipistrelle bats were recorded foraging within the site and the majority of the foraging behaviour was in close proximity to the cottage. At 03:53 both bats began to investigate the eastern gable of the cottage and one of the bats landed briefly on the wall beneath a section of raised slates (see Appendix 2 for location). However, neither of these bats actually entered the building and both were subsequently observed commuting out of the site to the west where contact was lost. It is likely that the section of slates where the bat landed has been used as a roost in the past; however, no bats entered the building on this occasion.

In summary, the results of the current survey have identified the presence of a small non-breeding roost for soprano pipistrelle bats within the farm cottage; the roost was only occupied by a solitary bat and only on one occasion.

Figure 22. Soprano pipistrelle roost identified on the western gable of the farm cottage – roost site shown in more detail in Figure 23 and labelled A in Appendix 2.

Figure 23. Soprano pipistrelle roost labelled A in Appendix 2 - only a solitary bat was ever recorded within this roost.

5. Conclusions and Recommendations

5.1 Pipistrelle bats

The results of the building inspection in conjunction with dusk emergence and dawn swarming surveys have established the presence of a solitary non-breeding roost site for soprano pipistrelle bats within the farm cottage at Cushenquarters Farm. Following a total of two dusk emergence surveys and one dawn swarming survey the largest number of bats recorded roosting within the site was one. The mean colony size for soprano pipistrelle bats in Scotland is 237 and for common pipistrelles 126 (Racey *et al*. 2004). Therefore, the low number of bats within the roost provides a strong indication that this is a bachelor roost occupied solely by a male bat. Male pipistrelle bats often show a high fidelity to their bachelor roosts with individuals returning to the same site each year. However, the composition of the roost will change frequently throughout the summer with individual bats roosting in a myriad of alternative roost sites in close proximity to the main roost[1]. In accordance with the Bat Mitigation Guidelines (Mitchell-Jones 2004) small non-breeding roosts of common species are of low conservation significance.

Pipistrelle bats:

Conservation status – worldwide:

Lower Risk: Least Concern (Hutson et al. 2001).

Conservation status in UK:

[1] Nicholls B. (2006) *Habitat Preferences and Resource Partitioning in Cryptic and Sympatric Pipistrelle bats*. Ph.D. Thesis. University of Aberdeen: U.K.

Not Threatened (Hutson 1993a). Pipistrelles are the most common and widespread species throughout the UK. There is some evidence from the Annual Bat Colony Survey that their numbers may have declined nationally in the last 50 years, but this is not the case in Scotland.

5.2 Proposed Works and Predicted Impacts

The proposed works will involve substantial alterations to the fabric of the building and without mitigation will invariably result in the destruction/disturbance of an active roost site for soprano pipistrelle bats. Therefore, it will be necessary to obtain a derogation licence from NatureScot Licensing Team before the planned works can take place. Currently, licences take 6-8 weeks to be issued, so application should be made in good time.

A licence application will be considered on three criteria:

1. That there is a licensable purpose for which licenses can be granted. A licence may be granted 'to preserve public health or public safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'.

2. That there is no satisfactory alternative to the granting of a licence; and

3. That the action authorised will not be detrimental to the maintenance of the population of the EPS concerned at a favourable conservation status in their natural range.

A mitigation plan which would ensure no net loss of roosting habitat and provide protection for bats currently roosting within the site is outlined in Appendix 4. It should also be noted that this site only provides small non-breeding roosts for soprano pipistrelle bats and would; therefore, fulfill the criteria for a Bat Low Impact Licence or BLIMP (see below).

5.3 Bat Low Impact Licence (BLIMP)

A Bat Low Impact Licence or BLIMP is a new method aimed at streamlining bat licensing for ecologists. A licensed bat ecologist who holds a BLIMP licence can permit works, with low conservation impacts, to go ahead without the need to submit an individual licence application. However, this is dependent on clear criteria being met and the ecologist must notify SNH licensing team of the site details, and receive confirmation that the site has been registered before works can proceed.

A BLIMP licence can be used if all of the following conditions are met:

The site is on mainland Scotland;

1. The proposal only affects soprano pipistrelle or common pipistrelle bat roosts which are not used for breeding or as hibernacula;

2. Bat surveys of the development site have been overseen by an ecologist who holds a current bat survey licence valid for Scotland, in accordance with best practice as outlined within the document entitled: "Bat Conservation Trust, Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition" (Collins, 2016);

3. Works on site affecting bats will commence within 18 months of the date bat surveys were completed;

4. A site specific bat protection plan written by an ecologist who holds a current bat survey licence valid for Scotland, is in place, which details how works will be carried out on site to minimise the impacts of works on bats and bat roosts;

5. There is no alternative to the proposal (a simple design change) that will avoid the impact to bats and/or bat roost. The site specific bat protection plan referred to above must clearly consider alternative options which would avoid impacts to bats and bat roosts, and a justification given for discounting these options if appropriate;

6. The proposal has planning permission or a building warrant in place, is required in order to prevent serious damage to property, or is necessary for preserving public health or safety;

7. The site has been registered with SNH licensing team;

8. Prior to works commencing on each site: Purpose-built bat box(es), suitable for the species of bat present and the time of year works are being carried out, are erected on a suitable structure, in a sheltered position, within 100 metres of the site; or a suitable alternative roost site identified in the bat protection plan has been made available to relocate any bats found during works;

9. Prior to works commencing on site, all workers have been briefed by the licence holder or agent appointed by the licence holder, about the likelihood of bats being found on site, the terms of the licence, the requirements of the bat protection plan, and protocols in Annex IV "Agent Authorisation to Oversee Works on Site";

10. A copy of the site specific bat protection plan and “Annex IV - Agent Authorisation to Oversee Works on Site" is displayed on site for the duration of all works covered by the BLIMP licence.

What will the BLIMP licence permit?

1. A BLIMP licence will permit the following actions;

2. damage or destruction of soprano pipistrelle or common pipistrelle bat roosts which are not used for breeding or as hibernacula, on mainland Scotland;

3. temporary disturbance of those species in those roosts
4. obstructing access to those roosts
5. temporary handling of any bats of those species found during the course of works

5.4 Breeding Birds

5.4.1 Farm Cottage

No nests, either current or historic were identified within the farm cottage and therefore breeding birds will not provide any constraints to the proposed works for this building.

5.4.2 Agricultural Shed

Active nests for both swallow and pigeon were identified within the agricultural shed. All species of bird are protected when nesting under the Wildlife and Countryside Act 1981, as amended. Therefore, to avoid damage or other adverse impacts on active nests a full species protection plan is presented in APPENDIX 5.

APPENDIX 1. Relevant legislation of target species

BATS

All species of bats and their breeding sites or resting places (roosts) are protected under regulation 39 of the Conservation (Natural Habitats) regulations 1994 (amended 2007 and 2009) and section 9 of the Wildlife and Countryside Act 1981.
It is an offence to –

- Deliberately capture, injure or kill a bat.
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time).
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat.
- Intentionally or recklessly obstruct access to a bat roost.

The conservation (natural habitats) Regulations 1994 amendment of 2007/2009 clarifies 'disturbance' of bats as any activity that will impair their ability:

- To survive, breed, or rear or nurture their young.
- In the case of animals of a hibernating or migratory species, to hibernate or migrate.
- To affect significantly the local distribution or abundance of the species to which they belong

If a known bat roost is to be disturbed or damaged for reasons of development, a European protected species licence must be obtained from the Scottish Government Species Licensing Team Landscapes and Habitats Division Rural Directorate before demolition of the buildings may proceed. The Scottish Government requires approximately 6-8 weeks to process the licence application - the exact length of time depends on the complexity of the individual case, and the provision of comprehensive information in the application. The application can only be made once detailed planning consent has been obtained. European protected species licences may be issued for the purposes 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.

And in every case, a licence cannot be granted unless:

- There is no satisfactory alternative.

- 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.

Favourable conservation status' is defined in the Habitats and Species Directive as:

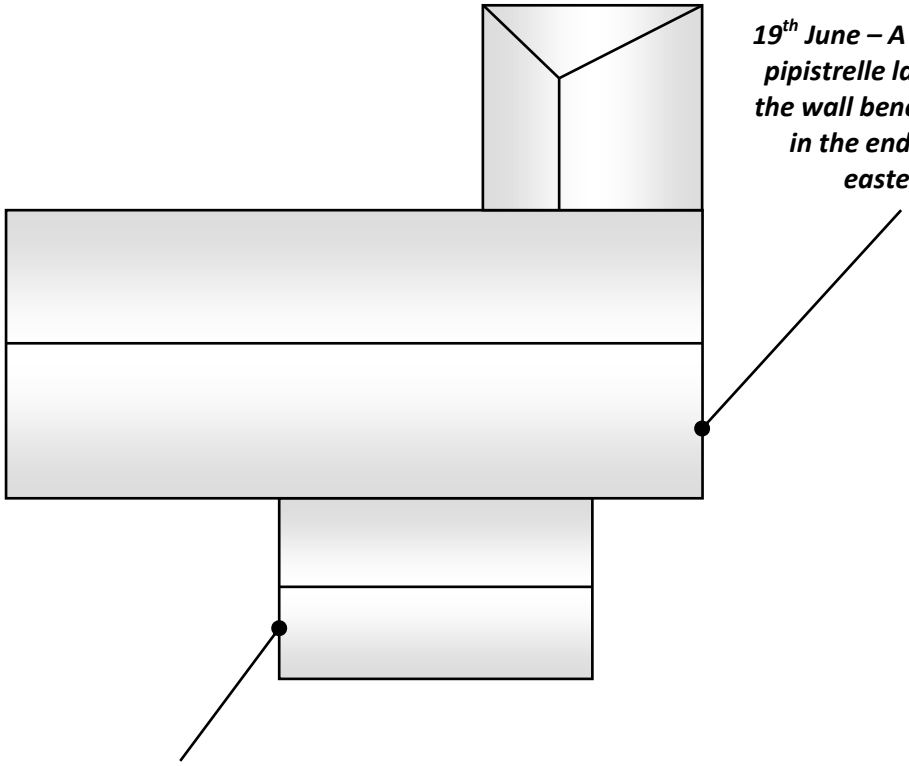
- The sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its population within the territory.

It is assessed as favourable when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitats, and the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and:

- There is, or will probably continue to be, a sufficiently large habitat to maintain its populations on a long term basis.

APPENDIX 2. Location of all roosts identified within Cushenquarters Farm.



<u>Soprano Pipistrelle Roost A</u>

Under slate

22nd May 2021: 0 bats

5th June 2021: 1 bat

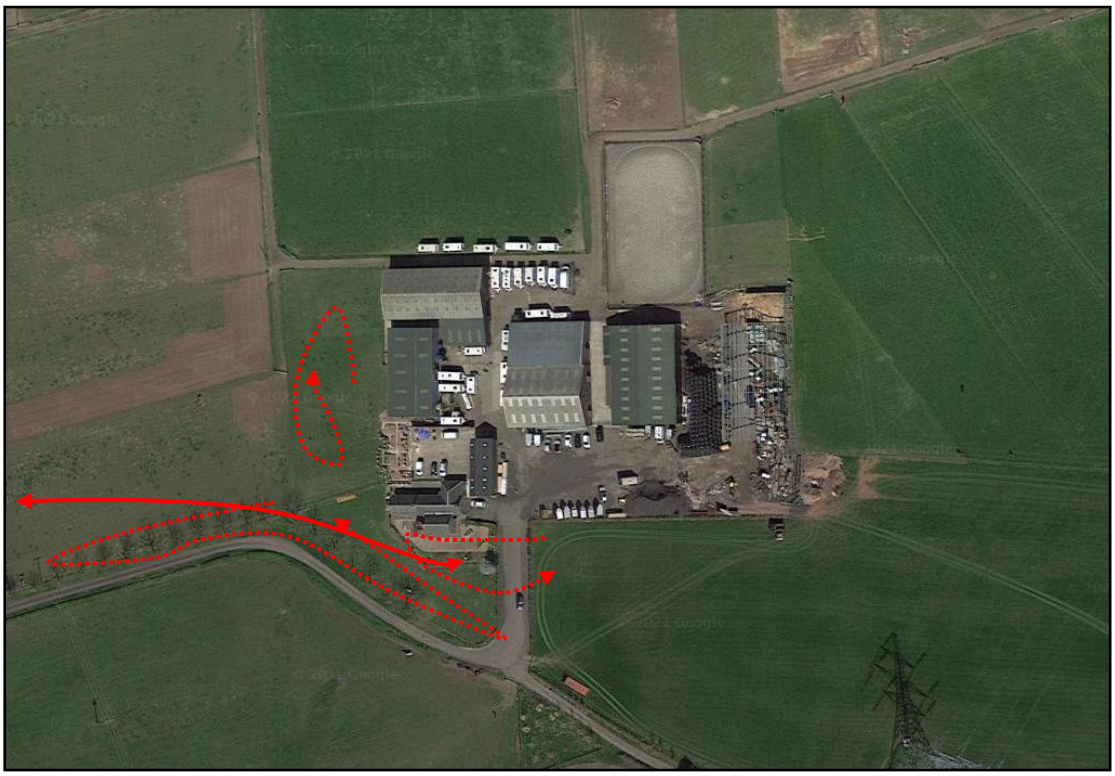
19th June 2021: 0 bats

(Shown in Figures 22 & 23)

APPENDIX 3. Most commonly observed foraging and commuting routes

Soprano pipistrelle foraging route

Soprano pipistrelle commuting route



APPENDIX 4. Bat mitigation plan.

A4.1 Summary of mitigation strategy

In order to maintain the favourable conservation status of the local bat population it is proposed that mitigation is provided in the form of supervision of the works, and the provision of alternative roosting habitat commensurate with that which will be lost The following mitigation strategy accords with current best practice and legislation (Mitchell Jones 2004).

The implementation of this approach is dependent upon two key points:

- The provision of alternative roosting habitat commensurate with that which will be lost.

- All works that directly impact the identified roost site will be undertaken under the direct supervision of a licensed bat ecologist.

A4.2 Personnel

All works where ecological supervision is required (as identified below) should be supervised by Dr. Barry Nicholls MCIEEM, an SNH licensed bat worker (current licence number: 126104) or by an alternative consultant of equivalent experience. All contractors attending the site should be briefed by the ecologist to highlight the potential presence of bats and to emphasise the importance of following the agreed working methods.

A4.3 Timing

All works on the roofs and stonework where bat roosts have been identified should be undertaken no earlier than September 1st following a pre-works building inspection to confirm that bats are no longer in occupation.

- Prior to the start of works a site visit should be carried out by a licensed bat ecologist alongside the architect/contractor to identify roost sites and discuss the implementation of mitigation where identified.

- Prior to the start of works a single bat box ('Improved Crevice' bat box) will be erected on a mature tree within 50m of the original roost site. This will ensure that there is a safe location away from the ongoing works to move any bats to that are discovered during the works. This bat box will remain on site in perpetuity to provide compensation for the loss of the roost within the site.

- A pre-works inspection will be carried out by the named ecologist to determine whether bats are still present within the building. The proposed works will only commence once the supervising ecologist is completely satisfied that the risk of bats being present within the building is nil or has been reduced to a negligible level.

- Prior to the start of works, the contractors will be briefed on the presence of bats, their legal status and the methodology to be followed within this method statement. A copy of this method statement together with the licence will be available on site at all times.

- Any works on the roofs or on stonework in the vicinity of the identified roost site will be carried out under supervision by the named ecologist and a thorough inspection will be undertaken of the wall plates and any cavities that are exposed. If the proposed works require the temporary or permanent removal of any roofing materials then this will be done carefully by to avoid crushing any bats that could be sheltering beneath. The removal of roofing materials will be closely supervised by a licensed bat ecologist working alongside the roofing contractors. Any bats found during the inspection will be captured by the named ecologist using thin-gloved hands or a hand net, placed in a draw-string cloth bag and re-located to one of the pre-installed bat boxes.

- A single non-breeding roost for a solitary soprano pipistrelle bat was identified within the site. Therefore, it is clear that the site has no great importance for resident bat species and the provision of a species specific bat box would seem proportionate mitigation in this case.

APPENDIX 5. Breeding birds – species protection plan for the agricultural shed.

Legislation

The Wildlife and Countryside Act 1981 (WCA) provides protection for all birds whilst nesting. There is also enhanced statutory protection to all breeding birds listed under Schedule 1. Recent and significant changes have been made to the protection of wild birds in Scotland by The Nature Conservation (Scotland) Act 2004.

It is an offence to intentionally or recklessly (reckless acts would include disregard of mitigation aimed at protecting birds, resulting in killing, injury, and/or disturbance of any bird or bird resting place) disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

It is an offence to:

- kill or injure any wild bird;
- capture or keep [alive or dead] any wild bird;
- destroy or take the egg of any wild bird;
- sell or advertise for sale any wild bird or its eggs;
- destroy, damage, interfere with, take or obstruct the use of the nest of any wild bird while it is in use or being built.

Further advice is available on the SNH website (http://www.snh.gov.uk/protecting-scotlandsnature/protected-species/which-and-how/birds/).

This Species Protection Plan (SPP) for Breeding Birds includes mitigation to achieve the above aims.

Mitigation Plan

Commencing construction outwith the breeding bird season ensures that the whole site can be actively worked on from the start. The core nesting season is from the beginning of March to the end of July, however some birds may not cease activity at nests until late August or even into September. If works have to commence during the nesting season, preventative measures and pre-construction monitoring will be required to ensure compliance with the Wildlife and Countryside Act.

Buildings

To prevent active/occupied nests from being damaged or otherwise disrupted:

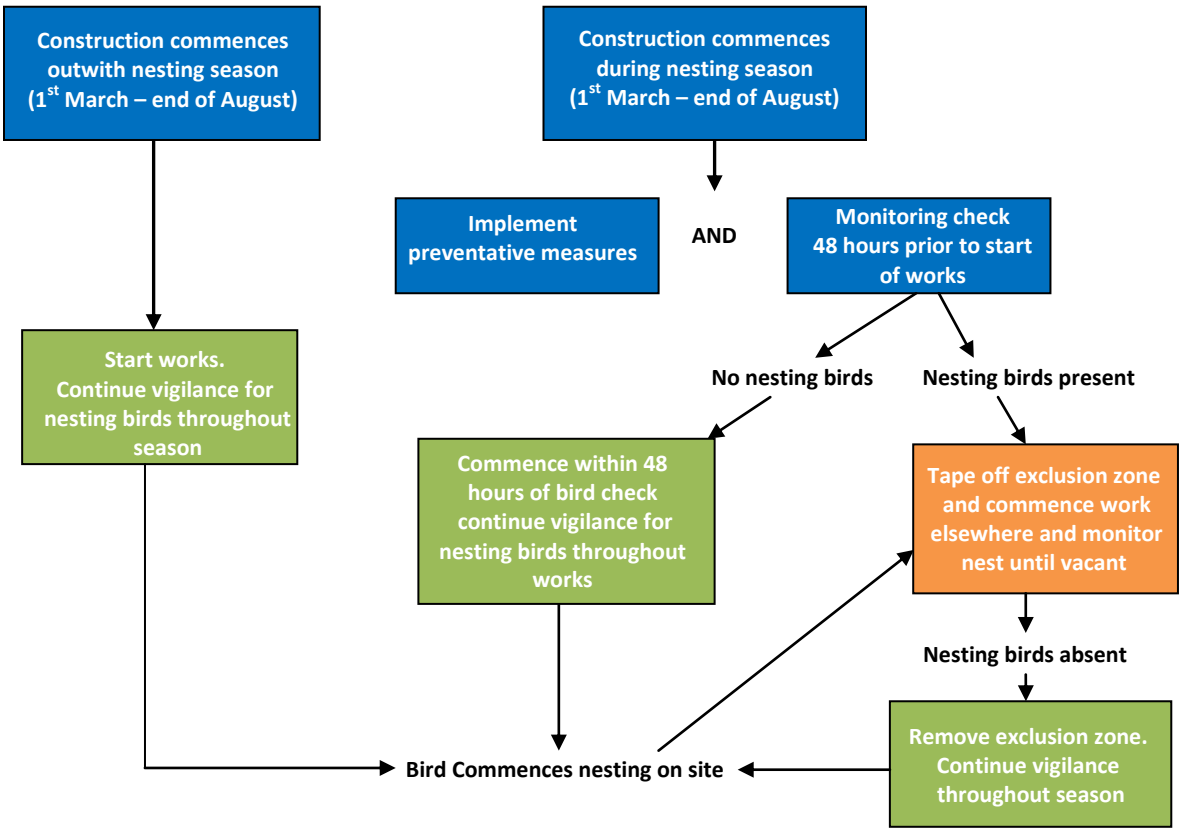
- All site workers should be informed of their responsibilities relating to the act and they should be instructed to immediately report any suspected nesting birds within the developmental boundary.
- Construction activities should be planned to avoid dismantling or other physical disruption to the building fabric during the breeding bird season. The core season is March to July inclusive, but birds can also breed in August/September.

- Entry points to the buildings must not be blocked during the bird breeding season. It is acceptable to block nesting habitat out of the breeding season provided that surveys have shown that no active nests are present within the site.
- If any works have to proceed unforeseen during the breeding season, adequate checks by an experienced ecologist should precede works to ensure no nesting birds are present. Such checks should be considered valid for 48 hours. If active nests are present, then a suitable buffer area will be taped off as an exclusion zone around the nesting area by the ecologist. This exclusion area will then remain intact until the nesting bird vacates the territory.

During the construction period

- Construction activities may inadvertently create habitat suitable for nesting birds. Oystercatchers frequently move in and occupy areas of bare ground, grey wagtails frequently nest in stored materials and sand martens may move into any piles of aggregate.
- If nesting birds are found on the construction site, a suitably experienced ecologist should be called in for advice. Typically the best approach is to tape off an exclusion zone to prevent damage to the nest area.

Summary of Mitigation Plan



APPENDIX 6. Surveyor location during activity surveys.

☆ Surveyor