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Wildlife Licence Unit
Department of Culture, Heritage and the Gaeltacht
National Parks and Wildlife Service
Wildlife Licensing Unit, R. 2.03
90 King Street North
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5 June 2024

Re: Bat Derogation License Application relating to minor roosts of Brown Long-eared Bat and Natterer's Bat at derelict dwelling site in Coolinny, Ballyhooly, Co. Cork

Dear Sir/Madam,

On behalf of the applicant, Roy Dorgan, I wish to apply for a bat derogation license to allow proposed works to renovate and extend a derelict farmhouse to make a new family home at a site in Coolinny, Ballyhooly, Co. Cork. The applicant is currently seeking planning permission for the proposed residence from Cork County Council (Planning Ref. 23/06008).

There is a night-roost of a single individual of Brown Long-eared Bat (*Plecotus auritus*), and a minor day-roost and night-roost of two Natterer's Bat (*Myotis nattereri*) in an outhouse beside the derelict farmhouse that is proposed for demolition, as detailed in the recent bat survey report (attached with this application).

Attached with this letter of application please find;

- NPWS Application Form for a Bat Derogation License.
- Coolinny Bat Survey Report by Abbott Ecology, May 2024.
- Appendix A: NPWS checklist of items to be included with a derogation license application including proposed Bat Mitigation Measures.

Please do not hesitate to contact me if you require any further information

Yours Sincerely,



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Appendix A. NPWS Derogation License Application Form: Checklist of Items to be Included with Applications

The NPWS Application Form for a Derogation License includes the checklist below of information to be included with applications;

"Please append a detailed report to support this application and ensure that it contains the following information:"		
11.1	Explanation as to why the derogation licence sought is the only available option for works and no suitable alternative exists as per Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations.	<input type="checkbox"/>
11.2	Evidence that actions permitted by a derogation licence will not be detrimental to the maintenance of the populations of the species to which the Habitats Directive relates at a favourable conservation status in their natural range as is required under Section 54(2) of the European Communities (Birds and Natural Habitats) Regulations.	<input type="checkbox"/>
11.3	Details of any mitigation measures planned for the species affected by the derogation at the location, along with evidence that such mitigation has been successful elsewhere.	<input type="checkbox"/>
11.4	As much information as possible to allow a decision to be made on this application.	<input type="checkbox"/>

Section 11.1 of NPWS Application Form

Consideration of available options and alternatives.

Alternative Option 1. Do nothing scenario, do not renovate and extend.

This is not a satisfactory alternative. If the farmhouse and outhouse were allowed to fall into further disrepair and dereliction, the site would eventually be lost, and the existing bat roosting opportunities would diminish through neglect. This would be a lost opportunity to bring a derelict site back into the housing stock. There is a positive element of recycling the materials that are already there.

Alternative Option 2. Do not demolish the outhouse.

This is not a satisfactory alternative, as the majority of the materials in the shed are rotten and damaged and unsuitable for habitation. The building would be an eyesore and a health and safety hazard to a young family that could potentially be living in the farmhouse adjacent to the outhouse. It would make the proposal of restoring the derelict farmhouse unviable if the family could not extend into the space currently occupied by the outhouse, and the project would be derailed.

Alternative Option 3. Try to repair/convert the outhouse into a habitable space.

There is no way to repair the outhouse and convert it to a living space without also destroying/disturbing the minor bat roosts that currently exist there, so this is also not a viable alternative.

Section 11.2 of NPWS Application Form

The bat roosts in question are a night roost of a single Brown Long-eared Bat, and a minor summer day roost of two Natterer's Bats. Given that the roosts are not maternity roosts, the low numbers involved, and an availability of alternative minor roosting sites, population-level impacts of the proposed development are highly unlikely. A small shed on site will be renovated for use as a bat compensation roost, bat boxes installed, and artificial lighting minimised (details in bat survey report attached). Along with other mitigation measures (next section) to reduce the risk of injury/death of bats, these measures will facilitate bats to continue to roost at the site. The actions permitted by a derogation license to allow works at the Coolinny site will not be detrimental to the maintenance of bat populations at a favourable conservation status in their natural range, as is required under Section 54(2) of the European Communities (Birds and Natural Habitats) Regulations.

Section 11.3 of NPWS Application Form: Bat Mitigation Measures

Bat Mitigation Measures

In the hierarchy of bat roost conservation significance, and proportionate mitigation, presented in the latest Bat Mitigation Guidelines for Ireland (Marnell, Kelleher & Mullen 2022), a night roost of a single Brown Long-eared Bat, and a minor day-roost and night-roost of two Natterer's Bats, is at the mid- to lower end of conservation significance, as shown in Plate 1 below from those guidelines.

Low	Roost status	Mitigation/compensation requirement (depending on impact)
	Feeding perches of common/rarer species Individual bats of common species Small numbers of common species. Not a maternity site Feeding perches of Annex II species	Flexibility over provision of bat-boxes, access to new buildings etc. No conditions about timing or monitoring
	Small numbers of rarer species. Not a maternity site	Provision of new roost facilities where possible. Need not be exactly like-for-like, but should be suitable, based on species' requirements. Minimal timing constraints or monitoring requirements
	Hibernation sites for small numbers of common/rarer species Maternity sites of common species	Timing constraints. More or less like-for-like replacement. Bats not to be left without a roost and must be given time to find the replacement. Monitoring for 2 years preferred.
Conservation significance		
	Maternity sites of rarer species Significant hibernation sites for rarer/rarest species or all species assemblages	Timing constraints. Like-for-like replacement as a minimum. No destruction of former roost until replacement completed and usage demonstrated. Monitoring for at least 2 years.
	Sites meeting SAC guidelines Maternity sites of rarest species	Oppose interference with existing roosts or seek improved roost provision. Timing constraints. No destruction of former roost until replacement completed and significant usage demonstrated. Monitoring for as long as possible.
High		

Plate 1. Guidelines for proportionate mitigation. The definition of common, rare and rarest species requires regional interpretation (Marnell *et al.* 2022). Red boxes indicate where the Natterer's Bat minor roost fits in this scheme.

Bat Mitigation Measures

The property owner will undertake the following bat mitigation measures (if planning permission is granted);

1. Automated acoustic monitoring of the outhouse prior to the proposed demolition date to gain knowledge of whether bats are likely to be day-roosting in the structure. A dusk emergence or dawn re-entry survey from inside the building to try and pinpoint the hidden roost space would then be recommended if acoustic recordings indicate presence.

Evidence of effectiveness of measure elsewhere: IA did this for a bat roost of Natterer's Bat along the Macroom by-pass and as it was proven that they were roosting inside the building in March. With this knowledge of definite bats in situ, the demolition team were motivated and engaged in being cautious, and the team were able to find the bats and capture them safely and move to alternative roost (under license).

2. Hand demolition of the outhouse under supervision of a bat specialist licensed to handle bats. It is recommended to conduct this outside of the coldest months of the year (Dec, Jan, Feb) to avoid the period where bats could potentially be in a vulnerable state of torpor. While it is quite unlikely they would winter-hibernate in this shed, the possibility can't be ruled out. The bats may be more able to find/adapt to alternative roosts and forage outside of this period. Natterer's Bat is one of the most winter-active of bat species in Ireland, probably due to its ability to catch non-flying insects gleaned from surfaces such as caterpillars of moths, spiders and even woodlice, as well as flying insects (Hope *et al.* 2014; Meier *et al.* 2022).

Evidence of effectiveness of measure: IA has had direct experiences in two projects where bats that had been summer roosting did not come to harm during the demolition of buildings because of careful manual demolition - the bats were handled (under license) and moved to a safe bat box/bat house, or flew away directly from the building themselves. Both instances involved supervised manual demolition in March, which is outside of the main bat active season of May-September. Normal demolition methods would likely have resulted in death or injury to bats in these cases.

3. Provision of an alternative roosting location for bats in part of the shed at the south of the courtyard at the rear of the farmhouse, as indicated in Plate 2.

- This alternative bat roost will be completed before the demolition of the outhouse (if planning permission is received).
- A new roof of slate and traditional bitumen type 1F felt underlay to be installed on the small shed shown in Plate 2. Breathable roofing membrane (BRM) to be avoided because bats can become entangled and die in BRM threads (Waring *et al.* 2013).
- Timber slats to be installed under the rafters of the new roof, to create a dark and sheltered roosting location.
- The existing window on the southern wall (Plate 2) to be left open for bats to fly into the shed beneath the timber slatted compartment.
- Narrow access space (c. 1.5cm) at the sides of the timber slats to be left for bat access. Roughened timber planks should be fixed to the wall just underneath the slatted timbers, with a gap of c. 1.5 cm below the level of the slats - the purpose of this is so that bats can land on the timber and then crawl upwards into the space above.
- An alternative access point for bats should be added by creating a lifting slate in the slate roof, with a small hole cut out of the felt underneath the lifting slate. Alternatively a Morris Bat access slate can be installed. Instructions for construction of this have been emailed to the property owner.
- There should be little or no artificial light spill near this building, particularly at the southern side near the access window.



Plate 2. Small section of stone shed with a slanting roof where alternative bat roost spaces to be created

Evidence of effectiveness of measure: This is a site-unique solution based on using the existing sheds close to the one that is proposed for demolition. Brown Long-eared Bat have taken up residence in new roost buildings (e.g. Macroon by-pass case, pers. obs). Both Brown Long-eared Bat and Natterer's Bat are known to roost between a slate-felt covering and timber ceiling sheeting, so this type of roost should be suitable to their needs as a minor

roost. A review of the effectiveness of bat mitigation in the UK indicated that the provision of a bat loft as mitigation was usually more effective than the use of bat boxes at providing compensation for bats, with 52% of lofts used, and Brown Long-eared Bat used new bat lofts most frequently (Lintott & Mathews 2018).

4. Bat boxes on buildings;

- Two bat boxes of Schwegler 1FF bat box with built-in wooden rear panels (Plate 3) should be installed on buildings in two of the three optional locations indicated by red arrows in Plate 4.
- No artificial lighting near these bat boxes.



Plate 3. Schwegler 1FF bat box with built-in wooden rear panels



Plate 4. Proposed options for location (red arrow) of bat boxes

Evidence of effectiveness of measure: In a study of the implementation and effectiveness of bat roost mitigation measures in England and Wales, bat boxes mounted externally on buildings showed the highest occupation rate regardless of bat species (Collins *et al.* 2020). However, the results of bat boxes are variable, and bat boxes are not usually considered suitable alternatives for bat maternity colonies (McAney & Hanniffy 2015; Mackintosh 2016; Marnell *et al.* 2022). The Coolinny case does not involve maternity roosts, rather minor roosts of a low number of Brown Long-eared Bat and Natterer's Bat. IA has direct experience of Natterer's Bat in particular using this type of batbox (project in Coolbaun, Co. Tipperary). There is also a building compensation roost as per Measure 4 above.

5. Native tree and plants;

Native tree planting has already been included in the landscape plan. As much native tree and plant planting as possible on the site will improve the foraging and shelter resources for insects and bats over the long-term. The prospective home owners are enthusiastic about nature enhancement at their site.

Evidence of effectiveness of measure: Refer to documents from Bat Conservation Ireland "Gardening for Bats" and Bat Conservation Trust UK "Encouraging Bats - A Guide for Bat-friendly Gardening and Living" for a list of actions and plant species that support insects and bats.

6. Restriction and Minimisation of Artificial Lighting at the site;

The potential home owners do not have intentions of up-lighters in the garden, or aesthetic lighting of walls. These would be detrimental to bats using the site. Downward-directed lights above the front door and back door are proposed. These will be switched off at all times at night when not in use. There will be no lighting installed near the bat boxes or the alternative roost shed listed above. Low bollard lighting may be installed along the driveway, and these will be switched off when not in use.

Evidence of effectiveness of measure: There is a mini-literature of the impact of artificial lighting on Brown Long-eared Bat and Natterer's Bat as some of the most light-sensitive bat species included in the attached bat survey report. There is a clear need for minimising external artificial light wherever these species occur.

References

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